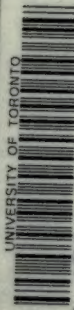


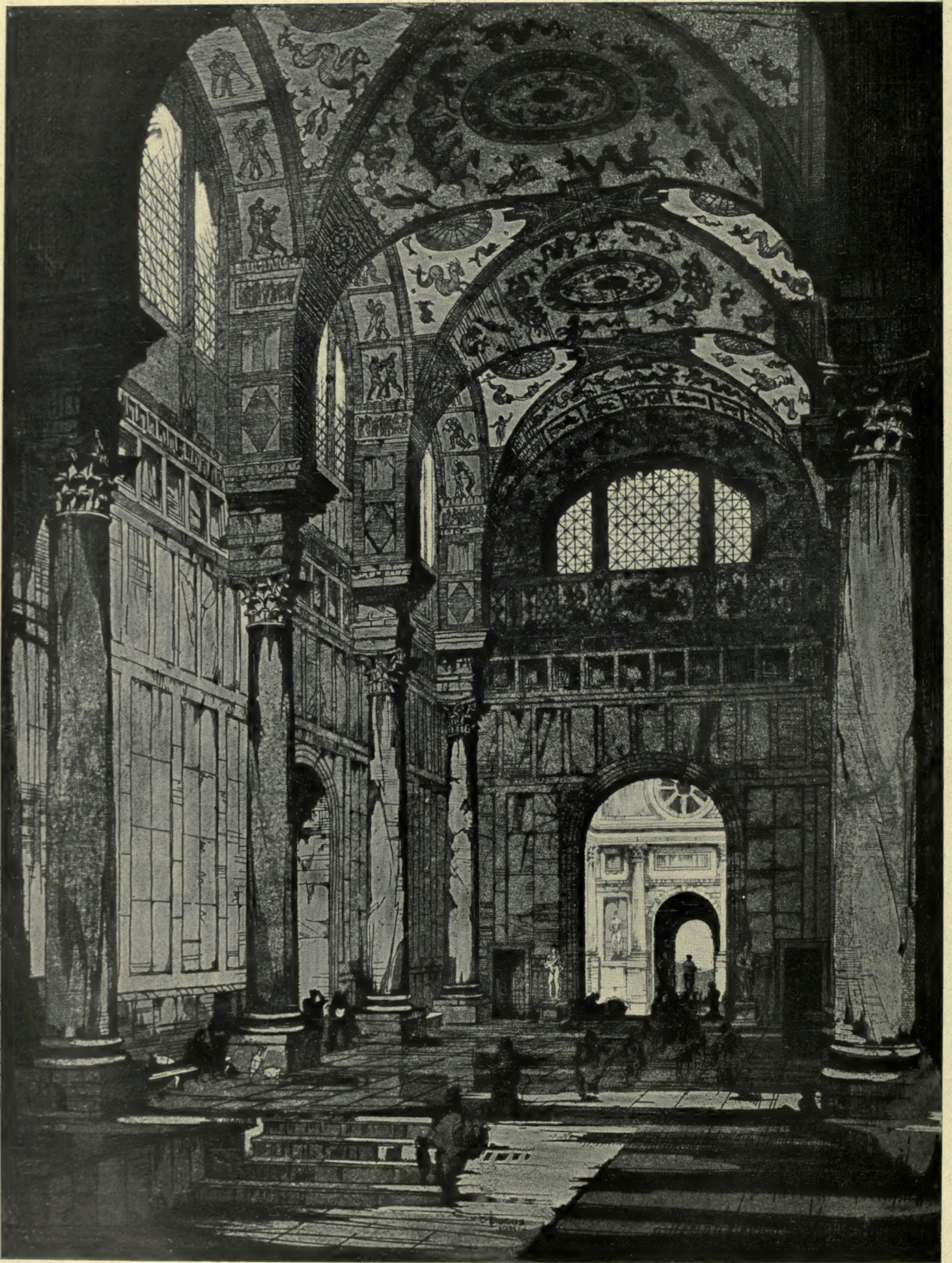
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CENTRAL HALL.

Roman Bath at Leptis Magna.

(Etching by CECIL C. BRIGGS. See pages 130, 131).

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FURTHER POMPEIAN STUDIES.

A. W. VAN BUREN.

(PLATES 1-13)

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INTRODUCTION.

SINCE the publication of the preceding installments of this series of attempts to elucidate certain antiquities of Pompeii,¹ the study of the Campanian city has entered upon a new phase. This is owing largely to the far-reaching and rigidly scientific campaign of excavation and investigation that has been conceived and is being vigorously executed by the Soprintendente, COMMENDATORE AMEDEO MAIURI.² Special recognition is also due to the stimulating interpretation of the wall-paintings in the volume by PROFESSOR LUDWIG CURTIUS,³ the appearance of which has been greeted by his fellow-workers at Pompeii as a remarkable advance in the understanding not merely of the dwellings of the local population but of the aesthetic psychology of the Empire. Portions of the following pages show the influence of these noteworthy contributions, and some of the interpretations here advanced may be acceptable to these distinguished scholars as modest gleanings in the fields which to their labors have yielded so abundant a harvest.

The peculiar difficulties inherent in some types of investigation here represented might have deterred me from proceeding with this work, except for unfailing kindness and ready assistance on the part of all those to whom I had occasion to appeal for aid. Where possible, specific indication of the extent and nature of such coöperation is furnished in the course of the text and foot-notes; but a general statement is proper at this point. The *Soprintendente alle Antichità della Campania e del Molise*, COMMENDATORE AMEDEO MAIURI, has at all times expressed the kindest interest in these studies, has granted every privilege desired, and in particular has afforded every facility for the scientific experiments required for the solution of the technical problem which forms the subject of Section 11. The personnel of the libraries of the Naples Museum and of the German Archaeological Institute in Rome did all in their power to trace an old drawing which proved a veritable *ignis fatuus*. To the technical competence of INGEGNERE LUIGI JACONO is due most of Section I, and the most valuable part of Section 11. CAVALIERE MATTEO DELLA CORTE

¹ *Mem. Amer. Acad. in Rome*, ii, 1918, 67-76; v, 1925, 103-113.

² A. MAIURI, in *Not. Scavi, passim*; *Studi e Ricerche*

sulla Fortificazione di P., in *Mon. Ant.*, xxxiii, 1929, 113-290; *La Villa dei Misteri*, Rome, 1931.

³ *Die Wandmalerei Pompejis*, Leipzig, [1929].

and PROFESSOR GIUSEPPE SPANO have continued their friendly coöperation of many years' standing. The authorities of the laboratories of Rome and Naples courteously dealt with chemical problems. Most of the photographic material reproduced in the plates testifies to the skill and patience of CAVALIERE GIUSEPPE GIORDANO and CAVALIERE FERDINANDO LEMBO. MR. HENRY DUSTIN MIRICK, Fellow in Architecture of the American Academy in Rome, kindly prepared the line-drawing for Pl. 11, Fig. 2, which possesses distinct value as a record of his own observation.

1. AN AVIARY.

The title of this first study and its justification are due to the keen observation of my friend, INGEGNERE LUIGI JACONO, who, knowing my concern with aviaries and kindred topics,¹ with his unfailing generosity has placed his ideas at my disposal. But its origin goes back to another friend, PROFESSOR GIUSEPPE SPANO, who, as part of his well-known programme of restoring to life and bloom the gardens of Pompeii, turned his attention a few years ago to the remarkable structure in the garden of Reg. VII, Ins. vii, No. 16,² and restored it convincingly as shown in Plate 1, Fig. 3.³ The restoration is precise in all details, except for the partial use of metal and for leaving to the imagination the solid roof which was the justification of the structure; the proportions of the whole, and the curving lines at the top, are copied from a painting in yellow on black, showing a structure similar in design, though presumably differing in function, in I, iv, 25, *Domus Popidiorum, Casa del Citarista*, on the wall to the right as one enters the great *triclinium* which opens at the northeast corner of the peristyle, Pl. 1, Fig. 2; the plan, Pl. 1, Fig. 1, was drawn by INGEGNERE JACONO.

This house appears originally to have formed part of a larger one, of which the area

¹ *J.R.S.*, ix, 1919, 59-66; *Mem.*, v, 1925, 111 f.

² In the rest of this article, Pompeian houses will be cited by *Regio, Insula* and Number, the three numerals only being expressed.

This house was described in G. FIORELLI, *Descrizione di Pompei*, Naples, 1875, 247 f., as follows:

« 16. Ma dove il secondo [vico] si torce per formare il prolungamento orientale dell'isola, e manca di selciato, ivi il muro esterno delle case è affatto rustico e privo d'intonaco. La prima abitazione teneva la porta della via rispondente in un porticato, che per tre lati cingeva il viridario; il quale avendo in angolo una vasca di fabbrica, rinchiudeva nel mezzo uno spazio circolare, circoscritto da canaletto di fabbrica per lo inaffiamento delle piante, nonché alcuni vasi di fiori, e due colonne laterizie, parte di un pergolato qui altra volta esistito. Nell'ambulacro a dr. della porta, ov'era la consueta scaletta di legno, stavano la cucina e la latrina.

In quello di continuazione alla porta trovavansi tre celle, la prima avente un piccolo armadio nel muro, e ciascuna delle due seguenti con finestra sporgente nell'ambulacro stesso, ov'era la nicchia dei Penati, che nel fondo ha graffito PROPI(tios), scritto per acclamazione ai Lari protettori della casa. Nell'ambulacro di fronte, rinchiudente il puteale della cisterna, stavano situati il tablino accosto a due cubiculi, ed il triclinio».

³ A full account of the structure, and an interpretation of the type, are to form part of the extensive work on ancient gardens which Professor Spano has in preparation. The actual excavation of the house took place in June (apparently) and July, 1871 (not 1872): G. FIORELLI, *Giornale degli Scavi di Pompei, Nuova Serie*, ii, 1870, 288, 347, with the list of bronze and terra-cotta objects found « nel secondo cubiculo a sinistra del tablino ».

to the south was perhaps expropriated by the authorities in connection with the extension of public establishments to the west of the Forum and north of the Temple of Apollo; the entrance to the present building is on the west, and gives access to a portico, 2 m. or slightly more in width, bordering on two sides a garden, 7 meters square. To the right as one enters, on a line with the corner pier of the portico, is the kitchen. To the left, opening upon the portico, is a series of *cubicula*; at the end, a *tablinum* and a *triclinium*. The portico, garden and kitchen all adjoin a blank wall to their south, which in the last days of Pompeii separated this property from the irregular-shaped structures and spaces that had their opening from the Forum to the north of the Temple of Apollo.

In the garden there is a circular wall,¹ about 1 ft. high and $\frac{1}{2}$ ft. wide,² covered with stucco which is painted on its outer face: this wall has circular enlargements ABCDEF, each with a hole at its center, 12 cm. in diameter, into which poles were inserted, as is proved by the remains of wood that were found in them. The sector FA lacks the wall; instead, at this point the cement (Signine) pavement of the area of the circle, the diameter of which is m. 6, extends beneath the cement gutter surrounding the garden. Thus the cultivated area of the garden is reduced to a thin strip between the circle and the gutter, varying from $\frac{1}{2}$ m. to $1\frac{1}{2}$ meter in width. In the southeast corner is a small tank, with its top about 3 ft. above ground.

Within the circle are two small brickwork columns, G and H, about 60 cm. high, set in line with the pier I of the portico. And since a brick column L, opposite the corner pier M of the portico, and incorporated in the structure of the eastern wall of the kitchen, is in line with the small column G, it appears that this kitchen wall must have been made by abolishing part of the third wing of the portico that surrounded the original garden. Moreover, we may suppose that in front of this third wing there was another line of columns to support a pergola, in prolongation of the roof, of which the supports G and H are the remnants. The circular construction, evidently, was a pavilion built when the new proprietor established himself in this portion of the house, and contemporary with the adaptation of the kitchen.

Plate 1, Figure 3, showing this unusual structure in its restored state, with the vegetation once more rambling over it, speaks more convincingly than words or designs for the soundness of the restoration. It is however with regard to the function which the structure was intended to fulfill that opinions have varied.

The restorer proceeded on the assumption that he was dealing with a particular type of garden-house, designed to afford a cool and shady open-air refuge to the owner and his friends, who were to be imagined as seating themselves on a wooden or stone bench supported on G and H.

¹ The *canaletto*, falsely so called, of Fiorelli.

are approximate (3 feet = somewhat less than 1 meter).

² Throughout this article, the measurements in feet

There are however certain considerations which render it difficult to accept this view, — considerations which harmonise more readily with the interpretation as an aviary, that is to say an open-air cage for the rearing of birds: we may regard the sides of the wooden frame as having been covered with a netting of hemp¹ or gut, the bottom of which would have been held in place by means of a curved wooden strip running along the top of the circular base of masonry, in the intervals from each pole to the next, and corresponding to the circle which the poles support; the netting as well as the poles might have served also like a trellis to hold trailing vines planted in the earth outside the circle.

This interpretation is suggested and supported by the following considerations: in the first place, no one intending to build a mere garden-house in a garden so small as this would have constructed a framework occupying almost the entire space; then, the blank wall to the south, which was certainly two stories in height, obviated the need for shade in the tiny garden. Besides, on the supposition of a garden-house, the arrangement of the bench on the bases G and H — placed, it is to be observed, unsymmetrically in the circle, — would have been very infelicitous and displeasing: the ancients would surely have adopted for this purpose one of the typical and usual *scholae*. It is easier to believe that these remnants of columns were left in place to serve for the support of vases containing bird-food and water, such as appear in the wall-paintings and mosaics where birds are represented as eating and drinking.²

Two water-worn boulders, one of limestone and one of granite, about 2 ft. in maximum dimension, are now lying near the northwest corner of the garden. They are very unusual objects for the equipment of a Pompeian dwelling; although somewhat similar stones, *cotes*, were used by the ancient workmen in giving a smooth surface to pavements, tessellated and otherwise.³ They may have formed part of the equipment of the aviary — for the birds to alight upon and in order to afford them a smooth stone surface against which to sharpen or clean their beaks. Their present position, outside the circle, is presumably the result of fortuitous circumstances during or after the excavation. As for the branches of trees or other perching-places which should form a feature of every aviary, these might have been attached to the inner sides of the poles. The concrete pavement, extending on the east side as far as the gutter, was well adapted for purposes of cleanliness, and with the masonry wall was vermin-proof; the tank nearby was also essential.

The love of the Pompeians for birds, and their familiarity with them, are recognised by all who are acquainted with the wall-paintings of the city; ⁴ we are justified in searching

¹ *Rete cannabina*, VARRO, *de R. R.*, iii, 5, 11.

² *E. g.*, in the mosaics attributed to the tradition of "The Doves of Sosus": *Jahrb. d. Inst.*, xlii, 1927, *Anzeiger, Beilagen* 10, 11; M. E. BLAKE, in *Mem.*, viii, 1930, 129-131. Also, *Not. d. Scavi*, 1929, pl. 20; MAU, *Dec. Wandm.*, pl. 8 (playful).

³ VITRUVIUS, vii, 1, 6; PLINY, *N. H.*, xxxvi, 187 f.; and see M. E. BLAKE, *op. cit.*, 18.

⁴ *Cf. Mem.*, v, 1925, 111 f.; F. WINTER, *Der Tod des Archimedes* (82. *Winckelmannsprogramm*, Berlin, 1924), 15 f.; 18, notes 15 f. H. MYGIND, *Hygienische Verhältnisse im alten Pompeji* (in *Janus*, xxv, 1921, 293 f.), considers

for an aviary at Pompeii,¹ and the building on a secluded street near the Forum which we have been studying appears to meet the requirements of such a search. The article *Aviary* in *The Encyclopaedia Britannica* may be read with profit in this connection: it should however be realised that the requisites there advanced are those according with a more rigorous, more northern climate than that of Pompeii. Along the shores of the Neapolitan Gulf a permanent indoor room, in addition to the open-air kiosk, is not required: during occasional spells of inclement weather, when more protection was needed than that afforded by the wind-screens of the four walls of the house, a temporary screening of canes or matting could be attached to the outside of the framework, or the more delicate of the feathered inmates could be taken for shelter and warmth to one of the indoor rooms of the establishment.²

It will be observed (p. 10, note 2) that the excavators found several vases for flowers in the circular area,³ which would lend themselves to the picture which we have formed of the aviary. There is perhaps further evidence that this neighborhood of the city had a special interest in the care of birds: for six «drinking-troughs for birds» were found in the house immediately to the south;⁴ but the weight of this last argument is slight.⁵

that die in Pompeji gefundenen durchlöcheren Tonplatten, deren Öffnungen denen eines Taubenschlags ähnlich sehen, bildeten die Aussenwand eines wirklichen columbariums, was u. a. daraus hervorgeht, dass die in der Casa del Fauno noch an Ort und Stelle sitzende Platte eine Öffnung verschliesst, die sich auf das Peristyl öffnet und so hoch oben angebracht ist, dass durch dieselbe nur sehr wenig Licht ins Haus gelangen könnte. Bekanntlich fanden die Tauben im Altertum häufig Verwendung als Brieftauben. He cites PLINY, *N. H.*, x, 110.

The whole subject of birds is treated in DAREMBERG-SAGLIO, *Dict. d. Ant.*, i, 699-705. Curious lore as to trained birds and exotic food birds is collected in L. FRIEDLÄNDER, *Darstellungen aus der Sittengeschichte Roms*, 9th. ed., Leipzig, 1919-1921, i, 170 f.; ii, 282, 285.

¹ A room with many skeletons of birds in the *Villa dei Misteri* was interpreted as an aviary by DELLA CORTE, in *Not. Scavi*, 1922, 481; but cf. MAIURI, *La Villa dei Misteri*, 217, note 98.

² Cf. D.-S., *Dict. d. Ant.*, i, 980 f., s. v. *Cavea*; v, 873 f., s. v. *Villa*.

³ Pl. 1, Fig. 3, shows one such vase, which has now been placed on a column.

⁴ IOS. FIORELLI, *Pompeianarum Antiquitatum Historia*, ii, Naples, 1862, 675 (22. Jan. 1859): «.... Poi nel primo de' designati lavori, cioè quello alle spalle del Tempio di Venere [Apollo], verso occidente del Foro civile, è stato rinvenuto. Terracotta Sei abbeveratoi di uccelli di diversa forma e grandezza, de' quali il più grande è di diam. pal. 0,15, ed il più piccolo pal. 0,10.» The house in question, if it was VII, vii, 30, which has no commu-

nication with our house, has its frontage not on the same street but on the Forum; but this need not have prevented either the proprietor of the aviary from storing his supplies there or — in case the birds were for sale — the purchasers of birds from going there to buy bird-troughs.

⁵ The mention of this class of object necessitates a somewhat detailed digression. Two specimens are depicted in D.-S., *Dict.*, i, 981, fig. 1268. A study of the excavation reports yields certain data for generalisation.

In Vol. ii, of FIORELLI, *op. cit.*, covering the excavations of the years 1819-1860, there are at least 52 instances of the discovery of «*abbeveratoi di uccelli*»; they generally occur singly, but in six instances two were found together, in one instance three, and in one exceptional case (*op. cit.*, ii, p. 573, 19. Aug. 1853) no less than fifteen, each of these latter having a diameter of 25 cm. With few exceptions these vessels were of terra-cotta, but bronze and glass are also mentioned. The frequency of their occurrence lends force to the query whether the name given them, undoubtedly correct as it is in many instances, deserves universal application, and whether they were all really used for the purpose which has been assigned them by the excavators; for it is, at first sight, a reasonable suggestion that in a house with *impluvium* fed by a fountain as was frequent in the last period of Pompeii, or with *piscina*, no birds, except those in captivity, in the main living-quarters, required a small drinking-trough, and there were no large number of bird-cages found at Pompeii — though most of these cages may have been of perishable wood.

G. FIORELLI, *Gli Scavi di P. dal 1861 al 1872*, 171,

2. MISSILES.

The discussion of the *Marks of the Sullan Bombardment* in a previous installment of these notes¹ now receives its sequel, which is concerned with the missiles which were the cause of these marks, and also the corresponding missiles of the defenders of the walls, together with their history in the period after the siege and before the catastrophe of the year 79 A. D.

It is obvious that in the operations of attack and the preparations for defence a large number of such missiles, of varying calibres, must have been assembled; it is also clear that in the subsequent time of peace, while the lead sling-shot could be melted down, the presence of hundreds, or more probably thousands, of more or less hard stone balls presented a problem. The form of the problem was simple so long as it was deemed desirable to

mentions 43 terra-cotta « *abbeveratoi di polli* », and says : *Appartengono alle cucine*, a generalisation which is doubtless based on his observation of the circumstances in which some of them were found, and certainly suggests what may have been one of their functions : fowls destined for eating would be tied in the kitchen while being fattened, and thus would require such water-troughs.

Id., *Giornale degli Scavi di P., Nuova Serie*, i-iii, 1868-1874 (covering part of the same period of time as the work just cited), yields the following information as to these objects : six instances of single finds ; one instance of two found together ; one, of three together ; one, of five together : sixteen in all.

Not. d. Scavi, 1876-1930, proves more instructive, since it records some details of the circumstances of discovery or the peculiarities of the specimens which possess distinct value for the interpretation of the objects. I have noted 46 examples : they are generally of terra-cotta, they generally occur in inside rooms, but sometimes appear in shops with other objects for sale ; in four instances they were observed to have fallen from an upper story, and this suggests that many other examples may have come from a similar position. They follow :

20 single instances : 1879, 45 ; 76 ; 1880, 254 ; 1881, 93 ; 1882, 241 (*grande abbeveratoio di polli a base circolare, coperto da cupoletta con sei fori in giro, ed uno nella sommità; diam. in base mill. 285*) ; 1890, 328 (in shop) ; 1892, 429 ; 1893, 213 (*nelle macerie dei piani superiori*) ; 1894, 382 ; 1899, 145 ; 146 ; 1900, 502 ; 1910, 331 f. (*Abbeveratoio di uccelli, di forma biconica, di argilla ordinaria, con prolungamento laterale munito di foro trasversale, nel quale, intromesso il prolungamento tra due ferri della gabbia, veniva infilato un pezzo di legno o di altra materia, per tener fermo l'abbeveratoio; alt. m. 0,06 (Inv. 116)*) ; 1911,

269 ; 1912, 146 (fallen from an upper story) ; 247 (in terra-cotta, *pieno di sottilissime laminette di bronzo* — from a cage ?) ; 252 (fallen from an upper story) ; 257 (in a shop) ; 1913, 143 (*un abbeveratoio da colombi fatto di un cilindro vuoto, desinente in giù in tre aperture nelle quali affiorava l'acqua*, fallen from an upper story) ; 1923, 279 (in a *villa rustica*).

Two double instances : 1882, 240 (in an *atrium*) ; 1883, 216 (in a *dietrobottega*, with other objects for sale).

One instance of three examples in glass : 1882, 278 (*Abbeveratoio di uccelli a forma di calice, e colla sporgenza per legarlo alla gabbia, alt. mill. 39. Altro abbeveratoio a forma di cipolla, e col diam. di mill. 50. Un altro della stessa forma dell'anzidetto, ma diverso nella qualità del vetro, diam. mill. 60*).

One instance of four examples in two types, the first of which perhaps should not be included here : 1927, 18 (*bicchieri e bev. p. ucc., under 4 numbers*).

One exceptional instance of fifteen of these vessels, of terra-cotta, which were found in a shop, with other objects, where they clearly were ready for sale : 1879, 242 (in IX, vii, 4, a shop on the street-front of the *Casa del Centenario*).

¹ *Mem.*, v, 1925, 110 f. It is now possible to add somewhat to the list of points on the face of the town wall which were subject to the bombardment in question: this may in fact have included practically the whole stretch between the Porta Vesuvio and the Porta Ercolano. The marks of some large missiles are visible in the stretch that is faced with Sarno masonry near the *Torre di Mercurio* ; while a number due to small projectiles are visible in the stretch that is faced with tufa blocks to the west of that tower ; probably the besiegers planted no large engines opposite this latter stretch.

maintain the walls of the city in a state of defence: the responsible authorities doubtless commandeered all such missiles and stored them at suitable points, on or near the walls, in readiness for any emergency that might arise. And — apart from the compulsory dismantling of certain places — it was not until the principate of Augustus that it can have appeared justifiable to the administrative authorities of the Italian cities to eliminate military preparedness from their calculations.¹ With the establishment however of the Principate and universal peace, the old missiles would have fallen into neglect, and most of them may well have found their way, broken into suitable bits, to the rubble walls of late edifices.² It is however unlikely that all these characteristic objects would have met the same fate: a few, of suitable size or sizes, could have started life afresh as implements of the *palaestrae*; some, like the spent projectiles of our own Great War, may have commended themselves as « curios » in the houses of military veterans; others might lend themselves to decorative use in connection with outdoor monuments.

We are not dependent entirely on our imagination in dealing with this subject, for the presence today of 86 objects conforming to the type of ballista ball, in the small museum installed in the long brick building extending along the northern part of the western side of the Forum for which I have proposed the identification as a school,³ seems capable of no other explanation than that circumstances have combined to preserve for us a selection from the missiles that were hurled by the Sullan army's engines at the walls of Pompeii together with some that played their part in the defence.

Plate 2, Figure 1, shows this pile of balls, which I was enabled by the kind consent of the *Soprintendenza* to handle, eliminating some stones which do not conform to the missile type, and to arrange in a suitable pile. One of the older custodians remembers this group as having been in the same place 22 years ago, and as having been brought thither with the other objects from a former repository in the « Temple of Vespasian ».⁴ In any case, they represent an arbitrary accumulation from different parts of the excavated area, with no documentation of the provenance of individual pieces. They are easily distinguishable from the numerous weights, some of which are shown in the upper right-hand part of Plate 2, Figure 1; also from the irregularly rounded stones which must have been used for various purposes in the arts and crafts, *e. g.* for grinding colors in stone mortars; these latter classes are of limestone, and among the ovoid examples granite, a rare and late

¹ VITRUVIUS, i, 5, and v, 9, 8 f., contemplates the eventuality of a siege.

² A piece of granular lava, suspiciously like a ball much trimmed for the purpose, diameter *ca.* m. 0.27, is now built into the stylobate of a colonnade flanking on the north the street up from the Porta Marina toward the Forum, near its western corner with the *Vicolo dei Soprastanti*.

³ *Mem.*, ii, 1918, 73-75.

⁴ The valuable photograph, Sommer No. 1205, « *Tempio di Mercurio* », shows the state of the old collection of stones, terra-cottas, etc. as it was many years ago in its former location; here can be seen what appear to be stone weights in the shadow in the *cella* of the temple, and with them there may be some of the balls which we are now studying, but this is by no means clear in the photograph.

material at Pompeii, appears in a solitary instance.¹ The balls however which are shown in the pile in the center of the Plate are well-rounded, and they consist mostly of tufa; several are of lava; at least two are of limestone; several are of sandstone; marble is conspicuously absent. The approximate diameters of typical examples of various sizes are meters 0.23, 0.21, 0.19, 0.16, 0.14, 0.13, 0.11, 0.10.² I have observed on them no inscriptions or other intentional marks; but many have been damaged in one area of their surface, as if this were the result of impact. A very few are represented by mere portions.

Efforts to find reports of the discovery of such objects in the contemporary accounts of excavations have met with slight success,³ but the imposing group already described is to be supplemented by a few sporadic examples now visible at other points of Pompeii, and this list is probably not complete. In the room to the north of the *tablinum* of the house next to the north from the *Domus Vettiorum*, there is a ball of Nocera tufa, m. 0.19 in diameter, with one large lesion. The ball now in the *palaestra* of the *Terme del Foro* is of black compact non-granular lava, with diameter *ca.* m. 0.20; it has several lesions. In I, vii, 12, in the room to the east of the wide passage from the great peristyle to the intermediate *atrium*, there are, with a small oval sandstone object, two round balls each with a diameter of m. 0.13. One of these, of limestone, has a lesion at one point. The other, of tufa, shows the marks of a chisel all over it: it was not smoothed by a mechanical process (rubbing), as were most of the balls.

There are exceptional features to be observed in connection with the largest ball which I have seen at Pompeii, a huge tufa mass, spherical, m. 0.28 in diameter, which is lying in the first stretch, from the street, of the basement corridor of I, vii, 1, (*Domus P. Paqui Proculi*), marked «A» in the plan, *N.S.*, 1929, 389. At two points on its surface it bears cuttings which might have to do with letters or signs, possibly the numeral V. At one point it shows lesion as if due to impact. At another point it has a well-made deep cutting as if for inserting a long dowel — perhaps, if it was originally a missile, at some later time it was re-used, being attached to some support or supplied with a handle.

Such balls were also found outside the *Porta Ercolano*, that is to say in the actual area of the bombardment; this appears from Plate V of Volume i of PIRANESI and GUATTANI, *Antiquités de la Grande Grèce*, Paris, 1804, the relevant part of which is here reproduced as Plate 2, Figure 2. Here one ball is lying on the sidewalk, near the extreme left of our reproduction, while another is placed on the capital of a partly recomposed Ionic column.

¹ There is an oval sandstone boulder standing against the side wall of the *atrium* in I, vi, 13; one of limestone stopping the top of the *puteal* in the *atrium* of VII, xiv, 9; one stopping a hole in or near the *impluvium* of I, vi, 11. For the purpose of stopping, or at least partially blocking, the holes of *impluvia*, such oval stones are better adapted than perfectly round ones, owing to the position of the holes at the edge of the basin.

² The 2500 balls found at the military harbor of Carthage varied from 30 to 10 cm. in diameter.

³ G. FIORELLI, *Gli Scavi di P. dal 1861 al 1872*, 169, mentions *palle*, 1 of marble (*sic*) and 6 of stone. In *Not. d. Scavi*, 1922, 467, the description of a *villa rustica* includes *una grossa palla* of travertine *di m. 0,21 di diam., recante scolpite le lettere: K·E*. Possibly this is the Greek numeral 25, and denotes weight or caliber.

In the case of the latter, as in that of the ball a few lines above cited, with the dowel hole, we may really be dealing with an element of a typical Hellenistic form of tomb monument, the column with *epithema* (ROSTOVITZEFF, in *Rom. Mitt.*, xxvi, 1911, 133, recognises a vase as the normal form; the "round" *ep.* cited on p. 104 appears to be a disc, not a sphere); but in the present instance the fragments of three other Ionic columns that accompany the one supporting the ball create a strong assumption that all these architectural members come from a portico and that none was free-standing. Near the lower right corner of our reproduction there lies on the pavement what appears to be a fragment of still a third ball. No ball is mentioned in the contemporary reports of these excavations.¹

There is now sufficient material at various points of the ancient world for a comprehensive technical study of missiles; in offering the Pompeian material to the consideration of some scholar prepared for this larger task, I regret that the means at my disposal did not allow me to provide him with accurate measurements and weights; in any case he will prefer to take his own. The missiles at Pergamon were described by T. WIEGAND, in his *Bericht über die Ausgrabungen in Pergamon*, 1927;² the two groups of missiles found in the Yale University excavations at Doura-Europos in the campaign of 1930-1931 are still unpublished, but Professor Rostovzeff, who kindly informs me of them, states that the hundred or so balls which were found on the top of the walls, near the great approach, are of various diameters and probably late in date. The recent American excavations to the north of the temple hill in Corinth yielded many (*A. J. A.*, 1931, 409). The discouraging conclusion of RUD. SCHNEIDER'S article, *Geschütze*, in PAULY-WISSOWA, *Reallex.*, VII, i (1910), 1302, *einstweilen ist es aber noch nicht möglich, aus diesen verstreuten Funden Nutzen zu ziehen*, can no longer be accepted as a deterrent to further study.³

¹ FIORELLI, *Pomp. Ant. Hist.*, I, i, 153; ii, 114.

² *Abh. d. Preuss. Akad. d. Wiss.*, 1928, no. 3, pp. 14 f., pl. 7, with references also to Carthage and Numantia.

³ Recent years have witnessed the appearance of two important volumes on ancient ballistics and poliorcetics: W. SACKUR, *Vitruv und die Poliorcetiker*, Berlin, 1925; and BITONS *Bau von Belagerungsmaschinen und Geschützen, griechisch und deutsch* von A. REHM und E. SCHRAMM (*Abh. d. Bayerischen Akad. der Wiss., Phil.-hist. Abt.*, N. F., 2, 1929), Munich, 1929.

The material evidence begins in the second millennium B. C.: for such stone (or terra-cotta) balls have been found in the early settlements of Mesopotamia and Palestine.

EDGAR T. BANKS, *Bismya or the Lost City of Adab*, New York, 1912, p. 336, fig. in text: "There were, however, indications that this gateway was one of the chief entrances to the city, and that at least one battle was fought about it. As we began to excavate there, several burned, clay balls appeared on the surface; beneath, the ground was literally filled with them, and

before night more than a thousand of the balls were piled by the trench. They were the sling balls which the enemy had hurled against the defenders of the walls, and falling short of their mark, had fallen to the place where we found them. They were of many shapes and sizes; some of them were no larger than a walnut; others were larger than an orange. Some were of white stone."

In the recent excavations of Baron Max von Oppenheim at Tell Halaf numerous projectiles were also found; an example which I examined in his museum in Berlin is not dissimilar to the average Pompeian specimens: it is of hard stone, diam. ca. m. 0.10.

Cf. also G. SCHUMACHER, *Tell El-Mutesellim*, Leipzig, 1908, p. 13 with fig. 8: [first and second levels at northern hill, earliest settlement, hand-polished ware; second level, beginning of buildings with stone foundations.] *Dass die Stadt eine Belagerung aushalten musste, scheint aus dem Vorhandensein von abgerundeten Schleudersteinen, die über 200 an Zahl auf einem Haufen an dem befestigten Turme n neben Scherben lagen, hervorzugehen. Die Steine*

3. THE STONE BALLS IN THE *TERME STABIANE*.

It will not have escaped the attention of the readers of the previous section that among the stone balls there enumerated was included one of moderate size and weight which now lies in the *palaestra* of the *Terme del Foro*, where it presumably was found, and, if so, where it was doubtless used in antiquity in connection with the athletic activities for which that place formed the setting. Whether it was originally a missile, or was expressly made for its more peaceable use, cannot be determined. But that stone balls were a characteristic part of the equipment of the *palaestrae* of such bathing establishments in the last period of Pompeii is confirmed by the finding, in the *palaestra* of the *Terme Stabiane*, of two stone balls of different sizes. The contemporary report of this discovery is as follows :

MINERVINI, in *Bull. Archeol. Nap., Nuova Ser.*, v, April 1857, 115 : Le nostre ulteriori osservazioni ci han fatto rilevare che tutto il pavimento dello spazio limitato da quella piccola prominenza, e segnato nella nostra tav. *d'agg.* colla lettera *d*, è formato di grandi lastre di tufo bigio di Nocera, per modo che è abbastanza solido per potervi fare l'esercizio della sfera. Un importante ritrovamento ebbe luogo in questo medesimo sito; cioè di due grosse palle di pietra perfettamente rotonde e levigate, ed una più piccola dell'altra. Probabilmente queste palle di pietra servivano a' giuochi de' giovani pompeiani, che con que' pesanti esercizi addestravano i loro muscoli, e ne sviluppavano la forza.

There follows the citation of certain inscriptions referring to games of ball.

An illuminating commentary was soon published, by C. CAVEDONI, in the same journal, vi, Nov. 1857, 48 :

Nel legger ch'io feci queste ben considerate parole mi risovvenne del seguente classico tratto de' commentarii di S. Girolamo sopra la profezia di Zaccaria (cap. XII, *oper.* t. VI p. 896 *Vallars.*) [MIGNE, *Patrol. Lat.*, xxv, 1509], pel riscontro del quale parmi che la congettura del ch. Minervini si risolva in certezza e prenda piena luce. *Mos est in urbibus Palaestinae, et usque hodie per omnem Iudaeam vetus consuetudo servatur, ut in viculis, oppidis et castellis ROTUNDI ponantur LAPIDES GRAVISSIMI PONDERIS, ad quos iuvenes exercere se soleant, et eos pro varietate virium sublevare, alii usque ad genua, alii usque ad umbilicum, alii ad humeros et caput, nonnulli super verticem, rectis iunctisque manibus, magnitudinem virium demonstrantes, pondus extollant. In arce Atheniensem, iuxta simulacrum Minervae, vidi sphaeram aeneam gravissimi ponderis, quam ego, pro imbecillitate corpusculi mei, movere vix potui. Quum autem quaererem, quidnam sibi vellet, responsum est ab urbis eius cultoribus, athletarum in illa massa fortitudinem comprobari, nec prius ad agonem quemque descendere, quam ex levatione ponderis sciatur quis cui debeat comparari.*

Non so, se v'abbia altro antico scrittore, che ne lasciasse descrizione così viva ed evidente, com'è questa, dell'uso che si faccia nelle palestre di quelle pesanti palle di pietra o di bronzo, così felicemente presunto dal ch. Minervini. Mi giovi pure avvertire, che la maggiore delle due palle pompeiane probabilmente avrà servito per provare ed appaiare insieme gli atleti adulti, e l'altra minore per fare il simile degli efebi e fanciulli, conforme al detto del massimo Dottore della Chiesa, che anche per l'erudizione sua profana viene di di in di acquistando maggiore stima presso gli eruditi e gli archeologi.

waren teils natürlich runde, teils ovale Kiesel, teils unbearbeitete harte Kalksteine von 0,05-0,10 m. Durchmesser.

For siege engines in general, cf. G. LAFAYE, *s. v. Tormenta*, in *D.-S., Dict.*, v, 363-372, with bibliography.

The standard discussion of slingers' bullets is by G. FOUGÈRES, *s. v. Glans*, in *op. cit.*, ii, 1608-1611; the most recent article is by W. N. BATES, in *Amer. Journ. of Archaeol.*, 2d. ser., xxxiv, 1930, 44-46.

As is not infrequent in science, the interpretations thus early advanced with regard to the paved area and the balls that were found lying upon it have been repeated, expanded, or modified by successive writers. *E. g.* :

[NICCOLINI], *Le Case ed i Monumenti di P.*, i, Naples, « 1854 », *Terme presso la Porta Stabiana*, p. 5: *La prominenza, che si osserva fra la parte esterna delle descritte vasche e l'arena della palestra, presenta un viale solidamente disposto con grandi lastre di tufo di Nocera, da offerire una località al giuoco della sfera abilmente accomodata. E ci mantiene in tal divisamento l'essersi in questo sito ritrovate due grosse palle di pietra esattamente rotonde, l'una dell'altra più grande, da servire a' giuochi de' giovani Pompejani, che con que' pesanti esercizi invigorivano i lori muscoli e ne sviluppavano la forza.*

A. MICHAELIS, in *Archäol. Zeitung*, xvii, 1859, 21, follows MINERVINI and CAVEDONI, adding with regard to the balls : *und wurden ausserdem vielleicht nach Art der Halteren angewendet.*

G. FIORELLI, *Descr. di P.*, Naples, 1875, 162 : *lo sphaeristerium pel giuoco delle palle, due delle quali se ne rinvennero in pietra di diversa grandezza.*

OVERBECK-MAU, *Pompeji*, 4th ed., Leipzig, 1884, 219 : *nur an der Westseite zieht sich ein etwa 2,48 M. breiter Streifen.... von glattem grauem Tuffpflaster mit erhöhter Kante hin. Auf diesem lagen bei der Ausgrabung zwei grosse und schwere steinerne Kugeln, welche gewiss nicht zum Ballspiel, sondern, auf der gepflasterten Bahn gerollt, zur Erprobung der Kräfte dienten, wofür eine schriftliche Analogie beigebracht worden ist. Ob man nun hiernach die in Rede stehende Bahn mit Recht ein Sphaeristerium genannt hat (was einen Raum zum Ballspiel bezeichnet), mag dahingestellt bleiben....*

MARQUARDT-MAU, *Das Privatleben der Römer*, i, 2d. ed., Leipzig, 1886, 294 : *ein Streifen.... bestimmt um Steinkugeln.... darauf entlang zu rollen. Cf. MAU, in PAULY-WISSOWA, ii, 2753.*

MAU-KELSEY, *Pompeii*, new ed., New York & London, 1902, 189: On the west side the place of the colonnade is taken by a strip of smooth pavement with a raised margin; two heavy stone balls¹ were found here, which were obviously used in a game resembling the modern ninepins; at the further end is the room for the players.

H. THÉDENAT, *Pompéi, Vie Publique*, Paris, 1906, 103 : *Un des côtés de la cour, dépourvu de portique et recouvert d'un sol bien uni, servait sans doute de jeu de boules.*

MAU, *Pompeji in Leben und Kunst*, 2d. ed., Leipzig, 1908, 194 : *eine 2,48 m breite Bahn aus Tuffsteinen, auf der zwei schwere Steinkugeln gefunden wurden, bestimmt von K aus [from the room at the North end] auf der Bahn entlang gerollt zu werden: eine unserem Kegelspiel ähnliche Übung.*

H. STUART JONES, *Companion to Roman History*, Oxford, 1912, 116 : *a raised strip of pavement used for playing a game with bowls or ninepins.*

A. SOGLIANO, *Guida di Pompei*, 3d. ed., Milan [1922], 62 : *Lungo il lato sinistro dell'area per le esercitazioni atletiche corre il viale c destinato al giuoco delle palle di pietra.*

A. IPPEL, *Pompeji*, Leipzig, 1925, 75 : *Linker Hand, also an der hallenlosen Westseite, lief eine breite Bahn aus Tuffstein, auf der man mit Steinkugeln schob, also eine Art Boccia oder Kegelspiel....*

W. ENGELMANN, *New Guide to Pompeii*, Leipzig, 1925, 127 : *at the west side a kind of skittle-ground of smooth grey tuffstone; the heavy stone balls for the game have also been found.*

T. WARSCHER, *Pompeji, ein Führer durch die Ruinen*, Berlin & Leipzig, 1925, 160 f. : *Vor dieser Wand sieht man einen aus besonders schönen glatten Quadern gepflasterten Streifen, die sog. Kegelbahn. Hier liegt auch noch eine grosse Steinkugel, die fortzubewegen unseren Zeitgenossen einige Schwierigkeit bereitet.*

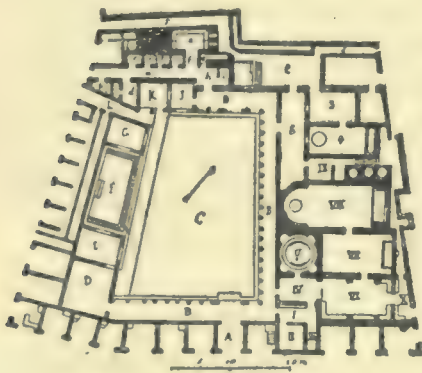
ID., *Pompeii in Three Hours*, Rome, 1930, 120, fig. 79, and text : *Two heavy stone balls were found here; they were used for a game resembling the modern ninepins.*

The fluctuation, in the interpretations thus offered, between the terms « bowls », « ninepins », and « skittle-ground », is perhaps indicative of a certain vagueness of conception as to the precise nature of the game in question; but in any case the view that the stone

¹ « Tre palle di travertino », erroneously, in [NICCOLINI], *Le Case ed i Monumenti di P.*, loc. cit., p. 11.

pavement on the western side of the *palaestra* of the *Terme Stabiane* served as a bowling alley, in which stone balls were used in some sense as bowls, has been stated in the manuals so frequently and by such distinguished authors that it practically holds the field, in spite of the discretion with which the « *Gang* » is mentioned in MAU'S *Führer*. It requires a certain effort to realise that there is no evidence in its favor, there are strong objections to its acceptance, and it is desirable to revert to a line of interpretation closer to that adopted by the first writers who dealt with the matter : this appears all the more essential in view of the fact, hitherto apparently overlooked by Pompeian scholars, that the game of bowls is currently stated not to be traceable further back than the thirteenth or possibly the twelfth century.

The ball now lying in the area of the *palaestra*,¹ doubtless one of the two that were found by the excavators on the paved space, and doubtless also the larger of the two, is of limestone, has a diameter of about m. 0.24, and shows lesions at several points of its



Plan of *Terme Stabiane*.

From A. MAU, *Pompeji in Leben und Kunst*, 2d. ed., Leipzig, 1908, p. 195, fig. 95.

surface. It can with difficulty be raised from the ground by a man of average strength. It might by a professional strong man be rolled twenty feet along the paved space, but if under this momentum it should strike the delicate border of that space it would certainly cause more serious damage than that which, incomplete in parts as it is, it has experienced ; and a few efforts of the kind would reduce the well carved and skilfully laid tufa slabs of the pavement to a state very different from that in which they have survived to the present time. This ball was never used for the purpose and at the place to which the theory assigns it.

The paved space, about one hundred feet in length, with its oblong slabs of tufa as pavement,² was ill adapted to stand any such usage, and its length is excessive for the purpose. Nor is there any preparation at either end for the reception of spent balls : at the south end was the gutter, and beyond it the colonnade, while at the north end a door led to a room beyond. The delicate marble ledge that forms the boundary on the western side, and the equally delicate tufa curb on the east, were utterly unsuitable to stand the impact of stray balls. Moreover, the paved space has a distinct slope to the west, that is away from the open area, which in itself would have rendered it unfit for a bowling alley : it was so arranged as to convey the rain-water that fell upon its surface, either from the sky or from the overhanging eaves, partly to the gutter at the western and southern edges of its south end, and I believe partly, by means of a semicircular cutting in one of its slabs,

¹ E. NORMAN GARDINER, *Athletics of the Ancient World*, Oxford, 1930, fig. 38 ; T. WARSCHER, *Pompeii in*

Three Hours, Rome, 1930, p. 120, fig. 79.

² WARSCHER, *op. cit.*, p. 121, fig. 80.

to the southeast corner of the large open-air *piscina*, which was thus in part replenished in time of rain (the cistern was also, in the late period, fed by a lead pipe, still in part preserved, at its northeast corner).

A similar explanation was suggested by K. WERNICKE, in discussing the paved area at the north end of the *palaestra* at Olympia; ¹ but in view of the fundamentally different character of that pavement, ² his suggestion that it is obvious that the one at Pompeii must have served the same purpose is not convincing. His explanation, moreover, of the function of the terra-cotta pavement at Olympia is highly improbable; and the treatment of that curious structure in the *Ergebnisse* is probably on more solid ground when it regards it either as a standing-place for the instructors and judges or, more probably, an assembling and sorting place for the athletes; E. NORMAN GARDINER ³ says « the object of this curious pavement is uncertain », but he is inclined to favor the term « bowling alley » for both the Olympic and the Pompeian pavements. We shall perhaps be well advised in recognising that such an open-air paved area next to the gravel — or grass — covered *palaestra* itself was susceptible of being put to various uses, including that of a running track, and that at the same time its builders served a practical end in utilising its considerable area for adding to their supply of rain-water.

What then was the purpose to which the Pompeians in the last period of their city put the two balls which the excavators found lying on this pavement? The passage in JEROME which was quoted by CAVEDONI is not altogether in point, as it alludes not to spherical balls that could be trundled or thrown, but to larger, irregularly shaped masses such as the stone at Olympia which served for the exploit of Bybon, ⁴ or the larger one from Thera lifted by Eumastas — two archaic examples — and the one represented on the red-figure cylix in the Louvre, G. 96. The larger of the two stone balls, the one preserved, would have been suitable, in the case of extremely powerful men, for an exhibition of prowess such as the present-day « putting the stone »; its smaller fellow might well have been used by less exceptional athletes for the latter purpose, and its function may be illustrated by the late fifth-century Etruscan bronze in the Bologna Museum. ⁵ Of « ball-playing » in any normal sense of the word — in so far as these solid and heavy objects are concerned — there can be no question, though doubtless the *pilicrepi* with their balls of less intractable material were a familiar sight in these surroundings.

¹ *Jahrb. d. Inst.*, ix, 1894, 197 f.

² *Olympia, die Ergebnisse*, Textband ii, 115; Tafelband ii, pl. 73.

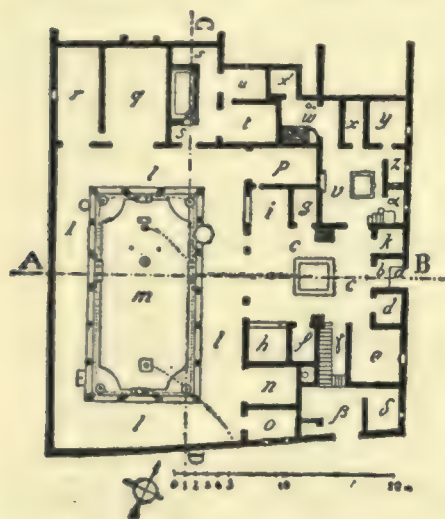
³ *Greek Athletic Sports and Festivals*, London, 1910, 488; *Athletics of the Ancient World*, Oxford, 1930, 75.

⁴ *Olympia, Ergebnisse*, Textband v, no. 717; *I.G.*, xii, fasc. iii, no. 449. See E. NORMAN GARDINER, *Greek Athletic Sports and Festivals*, 23, 313; *Athletics of the Ancient World*, 54, 154.

⁵ *Id.*, *Athletics of the Ancient World*, fig. 23.

4. *DOMVS VETTIORVM.*

It is with some reluctance that the following paragraphs are presented, treating of details connected with the Pompeian house which is best known to our contemporaries and which at the time of its discovery formed the subject of exhaustive study at the hands of two masters;¹ but, if the great fascination exercised by its wealth of choice fourth-style decoration and its refreshingly green peristyle has somewhat dazzled the eyes of observers to problems of a more strictly historical nature, there will be justification for an attempt to bring these latter elements into stronger relief.



Plan of *Domus Vettiorum.*

From A. MAU, *Pompeji in Leben und Kunst*, 2d. ed., Leipzig, 1908, p. 339, fig. 177.

As is well known, many houses at Pompeii show clear indications of having passed through various vicissitudes: the structure of the walls may exhibit the characteristics of an early period, with restorations of a later time, while the painted decorations may belong largely to the last period before the eruption, with perhaps here and there a few remains of earlier work. The exceptional preservation and the admirable workmanship of the House of the Vettii as it existed in 79 A. D., while they render a study of this dwelling from the point of view of its earlier history more difficult than in the case of some of its neighbors, still challenge us to the attempt.

PROFESSOR MAU, in preparing his report, in which his admirable qualities appear at their best, devoted considerable care to this very matter;² the first few of the following paragraphs are based upon his description, verified and amplified by myself upon the spot.

The house was already in existence in pre-Roman times, the second century B. C. at latest: but few remains of that period are now visible. There are the characteristic cubes of tufa which take the place of capitals for the posts of the great door (*a* in the plan); they are concealed by the stucco facing which reproduces their contour, except that part of the southern one is visible where the stucco facing has fallen away; in keeping with this motive are the scanty remains of the cream stucco *fascia* and moulding above them. This early period is represented also by the front end of the *atrium* (*c*), which is constructed of large blocks of Sarno stone, with the exception of the pier between the *fauces* and the

¹ A. MAU, in *Röm. Mitt.*, xi, 1896, 1-97 A. SOGLIANO, in *Mon. Ant.*, viii, 1898, 233-388.

² MAU, *loc. cit.*, p. 5.

room to their south (*d*); and on the south side of the *atrium*, by the bottom three feet of the jamb to the east and the bottom eight feet of the jamb to the west adjacent to the door of the room to the west of the stairway, before one comes to the south *ala*: these have large blocks of Sarno stone. There is early work also in the form of large blocks of Sarno stone to the north of the main *atrium*, in the bottom eight feet of the pier between the room (*g*) next beyond the strong-box and the *ala* (*i*). Finally, all the further, western, end of the *atrium* has large blocks of Sarno stone, with the exception of the left, southwest, corner. Most of these details about the *atrium* were still visible in the year 1926, but it has now become necessary to conceal them by the beams required for supporting the restored roof; the jamb however at the entrance to the north *ala* can still be seen. The inaccessible space to the north-east of *n* is described as containing an early well which had been abandoned in antiquity: it was found full of ancient fragments. In the peristyle (*m*) there are observable a round opening with *puteal*, near the west end of the north side, and a similar opening on the E. side, without *puteal*, but closed with a circular slab of marble by the ancients themselves, — the indications of an earlier system of collecting the rain-water in a subterranean reservoir, a feature of many dwellings of the Samnite period which in this house was subsequently abandoned. Otherwise, about the peristyle there is nothing assignable to an early period; the window of the northern *ala* (*i*), the entrance to the adjacent *triclinium* (*p*) at the northeast corner of the peristyle and the entrance to the little garden (*s*) to the east of the great *oecus* (*q*) do not form part of the reconstruction to which attention is shortly to be called, but on the other hand they do not show the long blocks of Sarno stone characteristic of the pre-Roman period.

As is well known to all students of the paintings, the greater part of the house underwent a restoration before the year 63 A. D., with the jambs composed of bricks¹ alternating with stones (grey tufa or Sarno stone) of shape to correspond — so-called « block-and-brick » work, — followed by a decoration of the walls in the last style, which is preserved in the *atrium* together with *alae* and in the great *oecus*. Of wall-paintings earlier than this « pre-earthquake » restoration — apart from the southern one (*t*) of the two rooms to the east of the little garden, of which I shall speak later, — there remains a small extent on the south side of the main *atrium*, between the stair-space and the first room on the left, south, of the *atrium*, which was preserved because one of the strong-boxes stood against it. By reason of the slight extent and the poor preservation of this bit, MAU felt unable to determine positively whether it was decorated in the third or the fourth style; it seemed to him however to belong to the fourth, and in this case, as he says, it would be demonstrated that the house had been painted three times in this style, which, as Mau himself admitted, is in itself not very probable.

¹ The familiar term « brick » is retained throughout this article, although broken tiles were the usual material in the earlier period.

At present, however, it seems that this stretch of painted wall can be observed to better advantage than in Mau's time. There is a dado of black panels with red borders; above this, two long narrow black panels representing Cupids in a manner similar to the well-known scenes in this house; and at the right end of the left panel is represented, on a larger scale than the Cupids, a yellow (*i. e.* a bronze) bust. Between the dado and the Cupid panels there is a band, now mostly pink, with considerable remains of cream paint and of circles incised by means of a compass, and occasional traces of brown color — suggesting somewhat the motives of the third style, but not necessarily belonging to it. The similarity of the Cupid panels to those elsewhere in the house is conclusive evidence that this stretch of wall was painted in the period of the fourth style, and in fact, however unlikely it may appear, there is nothing inherently impossible in this house's having received three successive decorations, at least on some of the walls, in this period, especially when we realise that the earthquake of 63 necessitated extensive repairs and redecorating.

The history of the house in this later period is revealed to us by the southern *ala* (*h*), which after having been painted, together with the *atrium*, in the fourth style, was transformed by means of a barrier in front, with two raised steps along its entire width. There was probably a wooden floor on the level of the top step, as the east side and the back are considerably worn just above this level; the west side is worn more irregularly and somewhat lower down. It is not quite correct to state that this *ala* was turned into a wardrobe, as there are no holes for the ends of beams in the walls. On this occasion, at a time before the year 63, a door between the *ala* and the room (*n*) to its south which faces on the peristyle, and also a large window opening from the *ala* on to the peristyle, were walled up and these walls were covered with white stucco. Then, in the earthquake of 63 A. D., the northern part of the wall between *ala* and peristyle fell, and it was subsequently restored with a jamb of bricks alternating with small brick-shaped blocks of yellow tufa. After this last rebuilding, the peristyle and the rooms adjacent, with the exception of the great *oecus* (*q*) and the room (*r*) to its west, and the rooms adjacent to the *atrium*, except the *alae*, received decorations in the last style, which cover without distinction even the door and the window walled up between the south *ala* (*h*), the room to its south (*n*), and the peristyle.

MAU's conclusion then was, that the paintings in this house, being all of the last style, fall into two groups, one older and one more recent than the earthquake of 63, which can also be distinguished one from the other by their characteristics. The older paintings were executed with exquisite, delicate taste, with wealth of the finest details, most of the more recent ones with ability and care but with a somewhat coarser taste and without great refinement in details; in some secondary rooms the work was frankly banal.

So far PROFESSOR MAU's observations, as controlled and amplified by myself. There should at once be added a further essential detail for our knowledge of the early history

of the house: the present administration, in reconstructing the main *compluvium*, has utilised seven terra-cotta gutter revetments of the Samnite period, doubtless found in the house, and for a long time exhibited in the *cubiculum* (*g*) at the middle of the north side of the *atrium*, when the photograph was executed for our Pl. 3, Fig. 1, *cf.* Fig. 2. These show the characteristic details of dentils in one course and palmettes and acanthus in another, while spirited *lupetto* dogs serve as water-spouts. These terra-cotta slabs are in part covered with a thick coating of Roman stucco which bears a painted decoration in relief in accordance with the later taste.

But interest in this house and its periods is stimulated by further considerations. In the first place, the plan of the building obviously falls into two parts, a rectangle to the south (not however a perfect rectangle, for the streets in this part of the city are not laid out at right angles), and some unsymmetrical additions to the north, which latter include, from west to east, the two large rooms (*r*, *q*) to the north of the peristyle, the little garden and its appurtenances (*s*, *t*, *u*), and the rooms (*x'*, *w*, *x*, *y*) to the north of the secondary *atrium* (*v*), including the kitchen and bedroom to its northwest: these were clearly, at an undetermined time, added to the house upon land which had been acquired at the expense of the next lot to the north.

In the second place, the southern one (*t*) of the two rooms to the east of the little garden (*s*) has walls which exhibit a feature not to be found elsewhere in this house, and decoration which contains another feature that is paralleled in only one room. Its walls show many vertical or inclined scratches, as if due to a falling upper story: see Pl. 4, Figs. 1, 2.¹ Such pronounced and regular scratches are not usual on Pompeian walls, but do occur on parts of the walls of the long black *triclinium* that opens off from the southeast corner of the south *atrium* in I, vii, 12, *Casa dell'Efebo di Bronzo*; they are most easily explained as due to the earthquake of 63. As to the decoration of this room, the body of the walls is black; above the black dado at the bottom there is a band in cream, with third-style motives of decoration in violet and green masses of color and brown tracing. Otherwise the decoration is in the fourth style, and this appears to be one of the instances when decorators in the fourth style, but not at its very end, were reminiscent of third-style motives, and chiefly in such simple borders as the one here. Another such border, but still more rudely executed, can be seen, and is shown on our Pl. 3, Fig. 1, in the *cubiculum* (*g*) at the middle of the north side of the *atrium*; here too there is a cream ground; the ornament is in brown alternating with pale green; but the dark tracing is lacking and there are merely the forms of the degenerate flowers in brown for every first and third unit, alternating with pale green for the upper element and brown

¹ Clearly visible in the reproductions of the central panel, which shows Herakles and Auge, *ap. Mon. Ant.*, viii, 1898, cols. 321 f., fig. 37; HERMANN-BRUCKMANN,

Denkmäler der Malerei des Altertums, pl. 47; G. E. RIZZO, *La Pittura Ellenistico-Romana*, Milan, 1929, pl. 70.

for the lower one in the intermediate units. When this latter room was being decorated in the latest period of the house, the painters for some reason, possibly because they were familiar with the room off the small garden, chose to introduce this motive; no one would suggest assigning a « pre-earthquake » date to the *cubiculum* (*g*) to the north of the *atrium*. But in the case of the room (*t*) to the east of the small garden (*s*) the question may well be raised, whether it is not a survival from the « pre-earthquake » period, and even whether it may not have received its decoration when it formed part of an independent house, before the *Domus Vettiorum* had extended its borders to the north.

In the places where the stucco has fallen from the upper parts of the walls of this house and revealed the masonry structure beneath, the effect can be extremely heterogeneous.¹ This is shown in part in our Plate 4, Figs. 1, 2. In the eastern part of the room (*t*) which we have been discussing, in its north wall, there appears a brick facing, as if it were the end of a wall of an earlier period, which was covered by the black stucco, the lower part of which still conceals it. Again, at the middle of the south wall of this room, there appears another vertical brick panel. Also, higher up, near the eastern end of the south wall, where the stucco facing has fallen away, the rubble of the wall is broken by a number of courses of brick, at two points; in the higher, more easterly stretch of these, they grow wider toward the top, whereas the lower, more westerly stretch is quite narrow and terminates evenly to east and west.

As regards the floor of this room, the back half is a good cement pavement, but the front half is in a deplorable state, with shabby efforts at repair: thus confirming our inference from the state of the walls.

At the entrance to the west of this room, the southern spur-wall is built of small rectangular blocks of Sarno stone (the upper five courses are apparently a modern restoration).

If the southern room (*t*) opening to the east of the little garden survived the earthquake of 63 except for the collapse of the ceiling, its neighbor (*u*) to the north was redecorated after that event. The body of its walls is in a cream color, and there is no trace throughout of motives of the third style; the room belongs entirely to the fourth style. Its floor however is similar to that of the room to its south, but is less damaged. In its threshold the restorers used, for setting the two door-posts, two travertine blocks, in each of which the depression for mortising the post was cut twice, with a slight modification of position. The more southerly block still bears on its upper surface part of an archaic inscription, PRIVA.

It should be added that the decorations of the walls about the portico of the little garden (*s*), which are in the fourth style, are admirably fresh, and of a different scheme of ornament from those of the two rooms which we have been studying. They have a black dado, then large red and black or cream panels, and, still higher up, a cream ground.

¹ Disregarding modern restoration.

This group of rooms, then, appears to have been built and decorated — not necessarily as part of the house to their south — before the earthquake of 63 A. D., and after that catastrophe to have been restored and redecorated with the exception of the one room showing a motive of the third style. Such motives will be discussed below, pp. 31-34.

It is of some interest to observe the nature of the masonry now visible, Pl. 3, Fig. 1, high up on the northern wall of the *cubiculum* (g) at the middle of the north side of the *atrium*. The various vicissitudes of this room are well represented. In the western part of the wall there are rows of small blocks, apparently of Sarno stone, alternating each with one or two rows of brick: these features are apparently due to the repair of an original rubble wall, which of course stood well within the original house-lot.

We now consider the position in the ground-plan of the two large rooms (r, q) to the west of the small garden, and opening to the north from the great peristyle. It has been recognised that the admirably painted walls of the larger and more easterly of these belong artistically with the paintings of the *atrium* and the *alae*, and that they antedate the earthquake of 63. As has been already observed, on the plan of the house these rooms as well as those adjacent to the little garden lie outside the rectangular scheme of the main and southern part of the house. There is tangible evidence that this northern part of the house was added at some late period of its existence; for by proceeding along the street that bounds the house on its west, and going southward from the northwest corner of the house for a distance of 30 ft. 5⁷/₈ in. (= 9.253 m.), approximately equal to the thickness of the north wall (ca. 15³/₈ in. = 0.391 m.) plus the length of the room (29 ft. 2 in. = 8.890 m.), we reach a point which is clearly marked by a crack on the outside wall as a line of demarcation in the structure (Pl. 5, Fig. 1). Moreover, 1 ft. 2¹/₈ in. (= 0.359 m.) to the south of this crack, or almost exactly the thickness (1 ft. 3⁵/₈ in. = 0.397 m.) of the south wall of the room within, there is further evidence. First, in the stucco dado at the foot of the wall, there is a marked vertical inset: the dado stands out about three inches further toward the street in the northern than in the southern part of the wall. Then, above this point, there is a slighter, rounded inset prolonging the same line, and still higher up on the wall this is diminished by adjustment, eventually becoming almost flat. This is true of an earlier, under, layer of stucco, on which can still be seen some large red letters of an election notice (Pl. 5, Fig. 2);¹ the earlier layer was subsequently concealed under another, sloping, coat, which however is now flaking off.

At this point, but well up on the wall, can also be observed a still more important element, namely what appears to be a portion of a tufa column shaft, unfluted, and faced with stucco; the western, streetward, face was dressed in the later period in preparation

¹ Most of this inscription is a replica of C. I. L., iv, 3572, advocating the candidacy of L. Rusticelius Celer, which was read at a point considerably further to the

south on the same wall, in *tectorii rudis parte antiquiore, quam anno 63 anteriorem esse credibile est*; but something preceded the name of this candidate.

for the stucco facing of the house wall; the preserved south face is distinctly curving. The column, if such it is, was clearly earlier in date than the brick-work higher up, about to be described. It is now becoming increasingly visible as the outer layer of stucco flakes away; it was doubtless this layer of stucco which concealed it from observation by previous scholars. The presence of this column on the street-front of a Pre-Roman house is intelligible, now that the investigations of COMMENDATORE MAIURI¹ have demonstrated the existence at Pompeii of exterior colonnades of private houses as early as the third century B. C.: we have the end column either of a house-front extending to its south or of one extending to its north, unless the colonnade faced westwards on the street.

High up on the wall at this point, the stucco facing has disappeared; here there is a brick treatment, partly visible; it is apparently the brick termination of the northern boundary wall in a period preceding the northerly extension of the southern house.

At the very top of the present northwest corner of the *Domus Vettiorum*, there are two rows of bricks alternating with single rows partly of tufa, partly of Sarno stone, still another instance of the various restorations which the edifice underwent. Just to the north of the corresponding point in the sidewalk, there is a discharge hole under the blocks in the *margo*: this still serves for the water from the garden of the house to the north.

The upper parts of the exterior of a large part of the west wall of the *Domus Vettiorum* are due to modern restoration; but below these, the ancient stucco in places has now disappeared, leaving the masonry available for observation; the process is progressive, and doubtless in a few years' time much more will be disclosed. It is already clear however that the structure is heterogeneous. At about 25 feet to the south of the above-discussed line of cleavage, or at about the middle of the house (Pl. 5, Fig. 3), there can be seen some apparently early masonry, consisting of blocks of Sarno stone, rather small (about 2 ft. long and 8 inches high), and also some rubble of Sarno stone.

The above observations with reference to a well-known house may suffice to indicate that there is a rich field for research open to the scholar who is willing and able to devote adequate time to a study of the vicissitudes through which the houses of Pompeii have passed: much of the history not only of families but of the community and the whole country can be traced in the changing ground-plans, modifications in domestic arrangements, and successive repairs and modernisations which these century-old dwellings underwent.

¹ *La Villa dei Misteri*, 46-52, 101 f.

5. *DOMVS TERENTI NEONIS.*

The precise study of the history of the houses is beset by many difficulties, and one source of confusion has been indicated by COMMENDATORE MAIURI: ¹

Parziali rifacimenti di pareti dipinte vanno tenuti presenti nello studio delle pareti pompeiane più spesso che non sembri, e possono spiegare incongruenze di stile, di colore e di composizione più che ogni elaborata teoria.

If it is sometimes difficult to be certain that all the elements of the decoration of a room belong together, the difficulty increases in the matter of the central panel pictures, for we have the word of VITRUVIUS ² that there was a recognised usage of inserting, as decorative panels, the slabs taken from older buildings, and from this a logical step would be the similar treatment of pictorial panels, while PLINY ³ actually cites an instance of a stucco surface which — *propter excellentiam picturae* — was detached from a wall of sun-dried brick in Sparta and brought, *ligneis formis inclusum*, to adorn the Comitium in Rome. ⁴ At the same time, it was a correct and natural procedure of the decorators to lay and paint the main surface of the wall first, leaving the central panels to be added in fresh stucco and painted by a more skilled artist. There are numerous instances at Pompeii where these panels are clearly separate from the surrounding wall: several times in the garden-house of the *Domus Lucreti Frontonis*; at least once in the large room to the east of the peristyle in the *Casa delle Vestali*; ⁵ and frequently in the *Domus Vettiorum*, e. g., in the three central panels in room *p* to the northeast of the peristyle, and in two central panels in room *t*. It is probable that a thorough search would reveal the fact that the phenomenon is usual rather than exceptional, and that its explanation is generally to be found in the decorators' routine above suggested. There are however different cases, such as the instances in the *Villa dei Misteri* « *diversi di misura di stile e di soggetto* »; ⁶ and the central panel of the north wall of the great *oecus* (*q*) of the *Domus Vettiorum*, where the panel itself — like the central panels on the other walls of the room, — was removed bodily by the ancient Pompeians who returned and salvaged their treasures after the eruption of 79, but in this instance there are still left in the wall five of the iron clamps which held it in place at its edges. In the latter house, the central panel of the east wall of the

¹ In *Not. Scavi*, 1929, 406, footnote 2.

² VII, iii, 10: *itaque veteribus parietibus nonnulli crustas excidentes pro abacis utuntur, ipsaque tectoria abacorum et speculorum divisionibus circa se prominentes habent expressiones.*

³ *N. H.*, xxxv, 173.

⁴ *Id.*, *N. H.*, xxxv, 154, refers to « either paintings

or slabs in low relief » (E. DOUGLAS VAN BUREN, *Figurative Terra-cotta Revetments in Etruria and Latium*, London, 1921, 31, 33).

⁵ MAU, *Dec. Wandmalerei in P.*, 415: « Die kleinen Bilder sind nachträglich eingesetzt. »

⁶ Described by MAIURI, *V. d. M.*, pp. 117, 204, and 218, note 119.

small *cubiculum* (*d*) which opens to the east of the main *atrium* and to the south of the main door is held in place by eleven iron nails; its original upper left corner was broken off, a nail was fastened on the edge of the original portion, and the missing corner was pieced out in stucco which forms part of the main body of the wall: this panel, which unfortunately is so illegible as to deprive us of the opportunity for appraising its merits, clearly belongs in the class of transported pictures.¹ Again, among the prosaic scenes of tavern life that adorn the walls of the *thermopolium*, VI, x, 1, the middle panel on the south side is held in place by three iron nails; as it does not differ in quality from its neighbors, we may be justified in suspecting the artist, or his patron, of enhancing the attractiveness of a modern panel by the pretence of treating it as an « Old Master ».

These observations have a special bearing on one of the most popular of ancient paintings, that now in the Naples Museum representing a husband and wife,² which after long being known under the names of P. Paquius Proculus and his wife has now been assigned, through CAVALIERE DELLA CORTE'S studies in the houses and inhabitants of Pompeii, to Terentius Neo and his wife. It was found in the house, VII, ii, 6, which is treated by CAVALIERE DELLA CORTE in two recent articles,³ and his assignment of the house to Terentius Neo has been assumed to carry with it the identification of the couple represented as the owners.⁴

It is the merit of PROFESSOR CURTIUS⁵ to have called attention to the chronological indications afforded by the headdresses of the pair, which date the portraits in the late Augustan or early Tiberian period;⁶ the artistic affinities of the picture also, as he indicates, are in this earlier period; since the decoration of the room in general, as shown in DELLA CORTE'S plates and still more clearly in our Pl. 6, Fig. 1, is in a very ordinary kind of late fourth-style tradition, obviously executed in the very latest years of Pompeii — for

¹ MAU, in *Röm. Mitt.*, xi, 1896, 17, 63, offers a somewhat different explanation of the history of these panels.

² R. DELBRÜCK, *Antike Porträts*, Bonn, 1912, pl. 38; on p. xlix, bibliography and description; *Datierung: in die letzte Zeit Pompejis, kurz vor 79 v. (read n.) Chr., da die Ausmalung des Hauses bei der Verschüttung noch nicht beendet war*; *J.R.S.*, xvi, 1926, pl. xvi; RIZZO, *La Pittura Ell.-Rom.*, pl. 191; on pp. 83 f. of the last-named work, RIZZO emphasises the Hellenistic tradition of these portraits.

³ *J.R.S.*, xvi, 1926, 146-154, pls. xvi-xix; *Publio Paquius Proculo*, in *Atti dell'Accademia Pontaniana*, lviii, Naples, 1928, 73-91.

A different interpretation has been offered by E. MAGALDI, *Di Proculo, principe dei panettieri pompeiani, e studioso anche*, in *Nuova Cultura*, 1928. He inclines to consider that the *Terentius Neo* of the election notice,

C. I. L., iv, 871, and the *studiosus et pistor* of 875, refer to one and the same person, namely a *Terentius* (?) *Proculus* [*Neo?*]; the second phrase he takes to mean « student and also baker ». While we congratulate this promising Pompeianist on his ingenious argument and its attractive presentation, we still feel that CAVALIERE DELLA CORTE'S treatment does fuller justice to the various elements in the present problem.

⁴ M. H. SWINDLER, *Ancient Painting*, New Haven & London, 1929, 374.

⁵ *Die Wandmalerei Pompejis*, 44, 379-382, pl. 12 (in colors: a worthy reproduction).

⁶ The husband's beard resembles that of the Marcellus from the *Macellum* of Pompeii, now in the Naples Museum (*Guida RUESCH*, no. 997). Convenient parallels for the wife's *coiffure* are the Livia, Julio-Claudian Lady, and Elder Agrippina, figs. 238-240 of E. STRONG, *Art in Ancient Rome*, London, 1929.

the excavators found that the redecoration of the house was still incomplete at the time of the eruption of 79, ¹ — his inference is unavoidable that the famous panel was transported from another and earlier wall. PROFESSOR CURTIUS however did not carry his observations to their logical conclusion as regards the persons depicted in the panel, the artistic qualities of which he has so ably emphasised. As the owner of the house, Terentius Neo, was alive and active during some of the latest electoral campaigns of the city, it is improbable that the painting represents him and his wife as they were some fifty or sixty years before; though the electoral favors of octogenarians may still have been a matter of interest in those keenly contested campaigns. Possibly the father and mother are represented. In any case, the sitters for the panel are best left nameless. ²

6. THE INFLUENCE OF THE THIRD STYLE.

PROFESSOR CURTIUS' masterly appreciation of the third style, its qualities and its limitations, ³ and in particular its dependence on the variations of the corresponding periods of the fourth style, which all scholars will now admit to be contemporary, has still left room for a consideration of the instances in which a certain element of third-style decoration occurs in surroundings which belong in the repertory of the fourth style. Of all the features characteristic of the third style, this is the most obvious and hence the one most easily reproduced: namely the horizontal or vertical bands in cream ground with a conventional or degenerate floral design in violet, brown and green or even simpler coloring. MAU ⁴ grouped some walls as « *unechten dritten Stils* », and considered that they showed that it was no longer possible, in the latest period of Pompeii, to decorate in the manner of the third style without a betrayal of the late imitation. The walls which we have in mind do not necessarily all fall within the limits of his group, but they possess a similar interest. It may now be a sounder method to regard these features as testifying to the influence of the third style in wider circles than those of the small group of masters — the « academic » group, to adopt Professor Curtius' expression, — who executed the charming rooms in the *Casa del Centenario* and the *Domus Lucreti Frontonis*. The chronology of such walls is not easy to fix: the true third style begins with the rooms of the

¹ G. DE PETRA, in *Giornale degli Scavi di Pompei, Nuova Serie*, i, 1868, 57-64, pl. 2; the panel in question is described on col. 63: *Tra i due cubiculi vi è il tablino ornato di podio rosso e con le pareti gialle, in una delle quali vedesi una Vittoria alata e coronata di alloro, portante un trofeo sull'omero sinistro.... Quale simbolo dell'amor coniugale.... vedevasi al di sopra dei loro ritratti un grazioso ed importante quadretto, ora nella parete XLVI delle Pitture antiche nel Museo, rappresentante Amore e Psyche....*

² The frontispiece to MRS. STRONG'S *Art in Ancient Rome*, vol. i, offers a somewhat similar instance of an old work of art in a new setting: C. Norbanus Sorex was a personage of the Sullan period, his bronze bust which is preserved is accepted as a product of the age of Sulla, but the two bases, *C. I. L.*, x, 814, which supported the two busts, use Augustan terminology.

³ *Die Wandmalerei Pompejis*, pp. 62-68, 188-200.

⁴ *Gesch. d. Dec. Wandmalerei in P.*, 444.

Casa del Centenario which are dated by the *graffito*, *C. I. L.*, iv, 5214, as not later than 15 A. D., and now, with the parallelisms with the successive phases of the fourth style which Curtius has established, we must allow it at least a generation of life after that year:¹ the « academic » tendency of which it was the expression died hard. But what I believe can be advanced as a contribution to its chronological study is, that practically all the instances in which its diluted influence is felt can be dated a decade and a half or more before the catastrophe of 79 A. D.: the third style had spent its force by the close of Nero's principate.

One of the latest datable examples² is the *cubiculum* (g) in the middle of the north side of the main *atrium* of the *Domus Vettiorum*, already discussed above, pp. 25-27, and illustrated on Pl. 3, Fig. 1: this is later than the earthquake of 63, and its third-style *fascia* is very degenerate indeed. But the room (t) opening off the small garden, described above, pp. 25-27, with less degenerate third-style features, is to be dated before that year, if the considerations advanced on pp. 25-27 have weight.

In the house I, vi, 7, the paintings currently called « fourth style » have these third-style features; and they were executed while the edifice was still a dignified private residence, before its transformation into the « *Fullonica Stephani* ».

In the *Domus Lorei Tiburtini* (II, v, 2), the room to the west of the *atrium*, containing the portrait of « the daughter of the house », is in a similar mode of treatment: it had suffered before the eruption of 79, a consideration which forces us to date the youth of the charming sitter some years back in the life of the place.

Even more convincing are the instances where a wall in the « false » third style has been repaired in the fourth style; or at least in the latest period of Pompeii. Pl. 7, Figs. 1 and 2, shows two details of the room behind the shop, I, vi, 10, which like the shop itself was once decorated in the style we have been describing and then received a coating of plain cream stucco in connection with a modification in the height of the ceiling. The under-decoration of the back room consists of the following elements, from bottom to top: (1) black dado with very irregular design of floral hangings in red dots; (2) green band with white edges; (3) main dado in black panels, separated by vertical bands, white with yellow borders and double black lines; on them are degenerate third-style motives, leaves alternating green and violet, and between them dark red dots; in the middle of each black panel is a design in white, a goblet and a smaller object, a vase and a smaller object, a bird, etc.; there is a simple white line about each black panel; these latter features appear clearly in Pl. 7, Fig. 2, a detail of the western wall; (4) horizontal white band in the

¹ The most recent chronological study of the Campanian wall-paintings is by F. WIRTH, in *Röm. Mitt.*, xlii, 1927, 1-83; on p. 79 the end of the third style is given (after MAU) as ca. 50 A. D.

² Others could be cited, in the *Casa di Menandro*, on

walls which were redecorated after 63 A. D. but some of which remained exposed for a sufficient length of time to accumulate *graffiti*: in the peristyle and its adjacent rooms, and in the reconstructed *caldarium*.

same manner as the vertical ones, but with a three-leaf motive, in alternating violet leaves (at sides) and green leaves (in middle) above the narrow white bands and also above the middle of the black panels ; (5) above, a more complicated third-style treatment, shown in the illustration of the southeast corner of the room, Pl. 7, Fig. 1. Above all this was a yellow field with landscape architecture on a small scale ; this was largely removed in preparation for the new ceiling. The shop in front of this room is less instructive, as its under decoration lacks distinctive features : it consisted of (1) a black dado with white decoration upon it ; (2) a red band ; (3) two courses of painted imitation of isodomic masonry, in white ground with lead-colored and red lines ; (4) purple band ; (5) frieze of white panels with fruit and birds ; (6) an upper white band : there is also preserved at the front end of the eastern wall a fragment of a solid red surface.

There is a similar instance of upper and lower coats of stucco — here too the preparation for laying the upper coat, a creamy stucco of fine quality, consisted in picking the lower one — in the room on the east side of VI, i, 7, *Casa delle Vestali*, opening off the peristyle directly to the south of the large third-style room (Pl. 13, Figs. 1 and 2). The under wall is presumably of the same period as the room in the third style¹ to its north but has no really conclusive features. It had a dado up to about 6 ft. from the ground, consisting of black panels separated and bounded by red vertical and horizontal bands. A horizontal line is visible at one point, about 1 1/2 feet above ground, so that there was probably a black border next to the ground, then this red line, then the dado proper of black panels separated by red bands. Above the dado, the rest of the wall was in solid cream. The earlier stucco is visible to a greater or less degree on the north, west and south sides of the room.

There is however no lack of evidence to show that the true third style, in its less refined and therefore, probably, later manifestations, was earlier than the year 63. An instance is in the house, not yet numbered, in Reg. I, Ins. vii, to the south of the *Domus P. Paqui Proculi*, with the restored porch-roof, at the street corner, opposite Reg. I, Ins. x : here, in the room behind the *atrium*, the walls in a rough third style are badly distorted and dislocated, surely owing to the earthquake of that year.

An interesting instance of the shift in taste away from the third to the fourth style of decoration occurs in the peristyle of I, vii, 10-12, *Casa dell'Efebo di Bronzo*, where the square *castellum aquae* with late decoration was set so as largely to block the view of the pleasing third-style *aedicula* ; the wall to the side of the *aedicula* belongs with the latter and not with the pillar,² but there may have been repainting of the base of the shrine and also of the pedestal within it.

The residuum of these few scattered observations concerning the aftermath of the third

¹ Described by MAU, *Dec. Wandmalerei in P.*, 415.

² *Not. Scavi*, 1927, 49-52, pls. 5, 6.

style, which are in accord with an impression formed by repeated wanderings through the city, is in agreement with Professor Curtius' estimate of that style: the product of an academic rather than a popular movement, it did not strike its roots deep in the psychology of the people; while it exercised a superficial influence, *i. e.* lent some features of its repertory of ornament, even as late as the last decoration of the *Domus Vettiorum*, it was doomed to sterility, and it faded away before the triumphant manifestations of the late fourth style, the true expression of the Neronian and Flavian periods.

7. THE *TABLINUM* OF THE *VILLA DEI MISTERI*.

With the above estimate of the third style it appears at first sight difficult to reconcile the most important recent addition to the repertory of walls thus treated, the superb black-decorated *tablinum* of the *Villa dei Misteri* which has been published and interpreted by COMMENDATORE MAIURI.¹ As it becomes known, it will be certain to attract attention and arouse discussion, partly for the great charm exerted by its black wall with its exquisite design and execution and the exotic elements from Egypt, partly for the question as to the place to which this decoration is to be assigned in the general scheme of Pompeian walls.² MAIURI'S conclusion will be received with all the consideration due its enunciator; it is as follows:³

Al di sopra di questa parete nera, restano le tracce del registro superiore di una parete a fondo bianco che, dal tipo schematico della decorazione, mostra chiaramente di appartenere al periodo della pittura del IV stile e il cui collegamento con la decorazione sottostante, risulta evidentemente posticcio ed inorganico per la nessuna fusione dei toni di colori, per la nessuna corrispondenza negli schemi disegnativi ed ornamentali, e soprattutto per la tecnica assai più scadente. Esaminando attentamente la qualità e la giunzione dei due intonaci fra il campo inferiore e superiore della parete, si osserva una netta linea di distacco dell'intonaco al di sotto del fregio della parete nera; se ne deduce che la decorazione in nero venne sovrapposta ad una decorazione preesistente dell'ambiente, il cui registro superiore era formato dell'attuale sopravvissuto intonaco a fondo bianco. E pertanto anche la parete nera che, secondo la comune classificazione degli stili pompeiani, avrebbe potuto essere attribuita al III stile, dev'essere invece anch'essa riferita al IV stile e probabilmente al periodo posteriore al terremoto del 63 d. C.

Here it may be permitted to question if the acute observation of the line of cleavage in the stucco below the frieze which forms the topmost part of the black decoration is not susceptible of another explanation, namely, that it was due to the method by which the workers in stucco executed their task, *i. e.*, to their laying the stucco upon the wall in hori-

¹ *La Villa dei Misteri*, 52 f., 201-204.

² This *tablinum* has features of similarity with the famous room in IX, i, 22, *Domus Epidi Sabini*, reproduced in MAU, *Dec. Wandmalerei in P.*, pls. 15, 16: a room which is less austere and lacks the Egyptianising figures, but in its dado shows likewise the influence of the motive

of shrubbery which characterises many dados of the fourth style of decoration. The shrubbery however on both these walls is accorded a treatment quite in the spirit of the third style.

³ *Op. cit.*, 203 f.

zontal sections, thus making it possible to complete the decoration of each section while the wall was still moist.¹ Another horizontal line of demarkation is clearly visible, at the east end of the south wall of this room, not below but above the frieze at the top of the black wall: it separates the black decoration from the white which is on the still higher part of the wall. Here the upper, white, stucco seems to have been laid later than the black. But at such points observation is extremely difficult if the decorators did their work well, and it is rarely that one finds so clear an instance as occurs in this very room, but in another connection. The activities of the next to the last owner appear to be represented by the construction of the solid wall which blocks the wide opening on the west side of this room toward the *exedra*.² When this wall was built, its inner surface, next to the black wall of the north side of the previous opening, was covered with a white stucco with light red vertical border which has the appearance of conforming with the scheme of decoration of the upper parts of the north and south walls of the room, except that the vertical bands at their two ends show a darker shade of red; it seems that the later decorator was imitating the pre-existing white decoration. This stucco of the western wall at two points was used to fill some breaks which had developed at the edge of the black wall; and the red paint of its border was smeared over on to the black. The black is certainly the earlier.

In view of the combination of circumstances, — (1) the apparent priority of the black decoration to the white on the south wall, (2) the certain priority of the black to the white with red border at the north end of the west wall, (3) the probability that the last-mentioned white decoration with red border on the west wall, obviously executed in imitation of the scheme of decoration now existing at the very tops of the walls of the room, was adopted, when the blocking of the great western aperture required the stuccoing of this new wall, in the same general period as the other white decoration rather than that it was a reversion to that style after the black walls had been executed, — it seems admissible to suggest a relative chronology of the decoration more in accord with generally accepted views as to the date of the finest examples of third-style ornament: first, the black decoration, then the white above it, then, when the western aperture was closed, the white on that part of the wall.

As Maiuri observes, the room was undergoing drastic modifications at the time of the eruption; it may have been in that connection, or it may have been earlier, that the black walls were deprived of what was doubtless esteemed a very special embellishment, namely, the discs or slabs of natural or artificial glass, with or without figured decoration, which I believe to have been inset at the two points, about six feet above the floor, on the north

¹ This procedure was recognised by MAIURI, *V. d. M.*, 208, in the great religious fresco of this villa.

² The present narrow aperture is apparently not an-

cient: MAIURI, *La Villa dei M.*, 52: « Questo ambiente che fu trovato chiuso verso l'atrio e verso l'« exedra » della veranda... »

and south walls, where there are now defaced areas ; the similar inset ornament at the *Casa degli Amorini Dorati*¹ has fortunately survived to explain the nature of this adornment, and two discs were found in clearing a *cubiculum* of the *pistrinum*, VII, ii, 3.²

8. DOMVS A. TREBI VALENTIS.

In my treatment of the technique of stucco ceilings at Pompeii,³ a foot-note at the end referred to the interesting features of the ceilings in the bath of III, ii, 1, *Domus A. Trebi Valentis*.⁴ Pl. 6, Figs. 2 and 3, exhibits the arrangements at the west end and the northwest corner of the more western of these two rooms, and shows the unusual combination of the normal two series of rafters and furring-strips respectively, represented by the holes for their reception in the west and north walls, with a vault that was carried by the series of furring-strips but the structure of which, in its lower part, at the haunches of the vault, consisted not of stucco but of tiles and cement. Another room in the same house should be mentioned in this connection : the *tablinum* with the black wall and its decoration in the second style :⁵ the traces of the stucco vault and cornice are instructive.

9. PORTA VESUVIO.

The publication of COMMENDATORE MAIURI'S epoch-making work, *Studi e Ricerche sulla Fortificazione di Pompei*,⁶ in which columns 168-191 and plate vi are devoted to this gate and its vicinity, prompts the consideration of certain unpretentious details of the gate which appear still to await their due interpretation. They are the three masses of construction which are indicated on MAIURI'S plate, in the portion here reproduced as Pl. 8, Fig. 1, by the letters *a*, *a'*, and *a''* respectively. These have been assigned to a final transformation of the gateway, begun after the havoc of the earthquake of 63 and still uncompleted at the time of the eruption of 79.⁷

The three views, Pl. 8, Fig. 3, Pl. 9, Figs. 1 and 2, show *a* and a portion, in Nocera

¹ The (originally) four discs with « *amorini dorati* » : SOGLIANO, in *Not. Scavi*, 1908, 34-36, figs. 5, 6, citing the parallel above given. Two slabs of dark glass in the peristyle : ID., in *Not. Scavi*, 1907, 554.

² FIORELLI, *Descr. di Pompei*, 182.

³ *J.R.S.*, xiv, 1924, 112-122.

⁴ *Not. d. Scavi*, 1916, 31 f.; designated as *s* and *t* on the plan, p. 31, fig. 2.

⁵ *Not. d. Scavi*, 1915, p. 418, fig. 2 ; CURTIUS, *op. cit.*, p. 73, fig. 50.

⁶ *Mon. Ant.*, xxxiii, 1929, cols. 113-290.

⁷ MAIURI, *loc. cit.*, 169 : « *Avanzi di quella che doveva essere l'ultima trasformazione di questa porta, si hanno nel muro ad opera incerta che si vede addossato al muro in tufo del bastione quadrato (a), nel sottile pilastro a' che veniva a delimitare un passaggio laterale nell'area angusta del marciapiede, nel più massiccio pilastro a'' che doveva costituire il piedritto e la spalla orientale dell'arco del fornice maggiore.* »

tufa, of the adjacent tower, with *a'*, from north; the eastern face of *a*, with *a'*, from east; and *a''* from southeast. The material of *a* consists of squared blocks of Sarno stone at the two ends, and between them a rubble of Sarno stone blocks and black lava and Nocera stone, laid in a friable grey cement; the larger Nocera blocks, the terra-cotta tile fragments, and the portions of Signine and concrete pavement that can be observed in one area near the northern end are due to ancient restoration, as is shown by the different quality of the mortar at this point. *a'* consists in its lower part of squared Sarno blocks at the ends, and between them a rubble of black granular lava; the upper part has two squared Nocera blocks and one of Sarno stone. *a''* consists of squared Sarno blocks, and a rubble of black granular lava laid in friable gray mortar. Its south and east faces are correctly indicated on Pl. 8, Fig. 2, according to my observations and measurements.

Such materials and construction are characteristic not of the last decades of Pompeii but of the period of the Social War, to which age the analogy of other gates would incline us to assign these remains. They are easily understood as the vestiges of a systematisation of the entrance, with a wagon-road and to its west a narrow foot-passage, an arrangement similar to, and presumably contemporary with, the double entrance of the *Porta Marina*. A similar black lava rubble was used at the same period at the *Porta di Stabia*. *a* is a long stretch of wall, or rather a pier, to support one side of a vault over the passage. The intermediate short pier, *a'*, partly of Sarno and partly of Nocera blocks, served to carry the eastern end of a small arch over the foot-passage and the western end of a larger arch over the wagon-road; but this double vaulting apparently did not continue far in from the entrance; *a''*, which is now represented merely by a fragment of its northern end, must be restored as having extended south to a point corresponding to the southern extremity of *a*, as it was clearly designed to support the eastern side of a single deep vaulted passage. In its present state, it has its original surface intact only on its north and west sides and the western part of its south side; to its east it is broken off; at the eastern end of its south side it takes a right-angled turn to the south, for a short distance, before it is broken off; the western portion of what now survives of this wall was a spur-wall turned toward the front end of *a* and *a'*, as an *anta* for the purpose of narrowing the actual entrance.

The correctness of the above interpretation of these fragmentary remains is established in several ways. There is in existence, and is shown by the roll of paper in the hand of the guardian on Pl. 8, Fig. 3, a groove caused by attrition,¹ at a height of from 0.48 to 0.58 meters above the present floor of the side passage and street.² There is a similar groove at a height of m. 0.68-0.78 above the present level of the road, on the road, or eastern, side of the pier *a'*. When these two grooves were worn, the road may have been

¹ A uniform coating of stucco was not always maintained on such walls: NISSEN, *Pomp. Studien*, 104.

² The present street paving and curb are late, as except at a few points there are no wheel-ruts on the lava slabs.

m. 0.20 higher, or else the sidewalk m. 0.20 lower. Such grooves were caused in similar positions in antiquity as today by the passing of people, animals and carts; the continuity of the former one in question on both the Nocera stone of the Samnite tower and the rubble surfaces of the pier shows conclusively that these two structures stood side by side for a considerable length of time before the eruption of 79. Again, the fact that the northern part of *a* underwent repair in antiquity points in the same direction; while the whole extent of the face of this wall to the south of the repaired section still bears traces of the white paint and the red letters due to its use for election notices. We are thus compelled to abandon the idea of a restoration of the gate in the last period of Pompeii; but *Porta Vesuvio* is entitled to rank with the gates of the city that were modernised, in rubble construction, in the period not far from the years 100-88 B. C.

10. « ... AND HE IS BEARING THE BABE DIONYSUS ». ¹

The significance of the panel which is now offered for the consideration of students of art, and especially of Greek sculpture, will not escape their attention: it contains the most precise testimony which the painted walls have as yet yielded as to the popularity of the art of Praxiteles.

Plate 10 exhibits the whole western, back, wall of the large room to the west of the peristyle in the dwelling-house, IX, v, 18, a typical example of wall-decoration in the third style.² The large central panel in the main register was removed in modern times, also the one on the south wall. A special feature consists of the panels high up on the back wall. The two figures looking forth from the side panel have their counterparts, *e. g.*, in the *tablinum* of V, i, 26, *Domus L. Caecili Iucundi*;³ in our instance, one is holding a book; the one to the left has yellow hair, that to the right brownish; both are probably women.

But it is the central panel which demands fuller attention. Against the blue background there appears a square pedestal, the color of white marble, with red border lines and vaguely colored inner lines on its front; its right side as one looks at it, which is rendered isometrically, is now practically the same color as the background, and terminates to front and back in vertical borders of red. Upon this pedestal there stands the powerfully proportioned figure of a youth, not the tone of marble, but flesh-colored (with some yellow tone) — too light to suggest burnished bronze, unless the original color has greatly faded; he rests his weight upon his right foot, his relaxed left being extended so as to appear

¹ PAUSANIAS, v, 17, 3.

73-87.

² Room *d* in the plan opposite p. 22 of *Bull. d. Inst.*, 1879. MAU described the house, *op. cit.*, 1880, 19-26,

³ MAU, *Dec. Wandmalerei in P.*, pls. 13, 14.

above the side of the pedestal. The scarf floating from behind his shoulders is of very pale blue against the darker blue of the background. On his left shoulder sits a babe; the youth's raised right hand appears to occupy a position over his head; we cannot now definitely say that it holds the object which, when the painting was better preserved, was described as "a bunch of grapes"; but one can still discern some object further to the right, near the infant's right hand, in darker color than the rest of the picture.

Pl. 11, Fig. 1, reproduces on a larger scale the upper part of the wall including the panel as it now is; Fig. 2 gives a line-drawing of the representation; Fig. 3, for comparison, a restored cast of the Hermes of Praxiteles.

This house was excavated in the year 1878, when the panel in question was described by SOGLIANO.¹ Some points in his description may have embodied subjective judgment as to the nature of the personage represented, in the sense that an identification with Hermes was not considered: the floating drapery, above described, by reason of its pale blue color, as a scarf, for which such a color is appropriate, he terms a *nebris*: he describes the youth as crowned with "pine", and he names him a "Satyr". The variations in MAU'S account leave some latitude.

In spite of the absence of the tree-trunk and the drapery suspended from it, and in spite of the altered position of the babe, who here rests on the shoulder of the youth, the similarity of this picture to the Hermes of Praxiteles is obvious, and it is far more essential than that which has been observed in the Satyr of the *Casa di Sallustio*² and that at the *Casa del Naviglio*:³ it extends to the forms of the figure, which in the other paintings have received a Hellenistic interpretation.

It is one of the curious coincidences in the history of science, that the date of unearthing of this house fell just too early to enable its excavators to recognise in our panel the reflection of the Hermes that had already been discovered at Olympia in May, 1877,⁴ and that on the other hand the similarity should at last be recognised at a time when the Praxitelean Hermes has become the centre of discussion by reason of questions that have been raised as to the period to which its execution is to be assigned.⁵

Students of ancient art who may have occasion to consider this hitherto neglected Pompeian panel with reference to the problem of the date of execution of the Hermes and also to broader questions of Greek sculpture should not lay excessive emphasis on the figure as a document either in favor of or in opposition to the attribution of the marble Hermes

¹ *Not. d. Scavi*, 1878, 265; *Pitt. Mur. Camp.*, Naples, 1879, no. 153, both quoted on Pl. 11. Also MAU, in *Bull. d. Inst.*, 1880, 84, quoted on Pl. 10.

² A. FURTWÄNGLER, *Satyr aus Pergamon*, 40tes *Winckelmannsprogramm*, Berlin, 1880, p. 21, pl. 3, fig. 6.

³ VON ROHDEN, in *Jahrb. d. Inst.*, ii, 1887, 66-68, pl. 6.

⁴ *Olympia, Ergebnisse*, Text, iii, 194-206; Taf., III, xlix-liii; W. KLEIN, *Praxiteles*, Leipzig, 1898, 373-408.

⁵ C. BLÜMEL, *Griechische Bildhauerarbeit (Jahrb. d. Inst., Ergänzungsheft*, xi, Berlin 1927), 37-48, and the considerable subsequent literature, e. g., G. M. A. RICHTER, in *A. J. A.*, xxxiii, 1929, 334-337; and the symposium in *A. J. A.*, xxxv, 1931, 249-297.

to the actual hand of Praxiteles : it must be realised that the Pompeian decorator was merely using some sketch which was several degrees removed from the sculptured original. And yet, while the Satyrs of the *Casa del Naviglio* and the *Casa di Sallustio* clearly came at the end of a line of Hellenistic, and specifically Pergamene, paintings, our panel is obviously far closer to the sculptured prototype.¹ The omission of the tree-trunk, in this as in the other paintings, will interest those who consider the Olympic Hermes to be a marble copy of a bronze original, which original did not require such a support ; they will regard this as evidence in favor of their view ; but others, who find the pose of the marble Hermes to be perfectly motivated by the tree-trunk, will attribute the suppression of this element, and the shifting of the position of the infant, to the artist who adapted the subject to pictorial representation ; to him also may be assigned the pale blue flowing drapery which may have been deemed to add a pictorial charm. The flesh color of the group may be taken to reproduce the tint which we assume to have been given to the authentic Praxitelean marbles ; but it may also represent the sentiment of the painter. In any case, the presence of the pedestal shows that the feeling for the statue as such was still maintained. And of course the bunch of grapes which SOGLIANO clearly saw and described is welcome confirmation of the generally accepted view that the Olympic Hermes held in his right hand this gift of Dionysus to mankind, an appropriate object to dangle before the eyes of the infant god ; though MAU's divergent description (quoted on Pl. 10) should be noted. As to the wreath on the youth's head, which SOGLIANO described as of « pine », we are tempted to suggest that it was of the same foliage as the metal wreath, now lost, that once adorned the head of the Olympic Hermes ; if this was of some other kind of leaf — which would be difficult to prove, — and if the wreath in our picture really was of pine, then in this painting as in the others cited, the artist has transformed the youthful god into a Satyr ; a similar query arises as to the drapery, which SOGLIANO described as a « *nebris* », but MAU as « *una veste a guisa di sciallo* ».²

11. DISCOLORED STUCCO WALLS.³

Many of the stucco walls of Pompeii have attracted the attention of both the casual tourist and the professed archaeologist by reason of the change which has taken place in

¹ The motive recurs in small bronzes and reliefs: A. DE RIDDER, *Les Bronzes Antiques du Louvre*, i, Paris, 1913, no. 547.

² When this article was already in the form of the first proofs, I learnt from Professor Ludwig Curtius that he and his students had made the same identification, and had made a photograph of the panel, several years ago. Their full treatment of the subject will be awaited

with the greatest interest.

³ The problem here discussed presents features of exceptional difficulty. My diffidence in printing the following pages would have been greater but for the kindness of COMMENDATORE MAIURI and the unfailing helpfulness of INGEGNERE JACONO, to whom are due a large part of the technical observations.

the color of the surface, not uniformly but sporadically and in larger or smaller streaks with curved edges, from an original yellow ochre to red.¹

It has been suggested² that the change from yellow ochre to red is due to the action of fire: the eruption and its accompanying earthquake would have caused local conflagrations, as the kitchen and oven fires or lamps (or braziers, in case the eruption took place in the autumn) would ignite the woodwork. And in fact there are now to be observed at least four instances of houses which show clear traces both of the blackening of wall-surfaces conceivably due to the action of flames and also of the change from yellow to red: I, vii, 2-3, in several rooms behind the *atrium*; the newly excavated *Casa di Menandro*, in the *ala* to the east of the *atrium* — where, if the simple explanation of the action of flames is retained, there must have been a very large fire indeed to have caused the changes from yellow to red on all the three walls and the change in a panel on the south wall from white to a greenish tone;³ — VIII, vi, 1, a bakeshop, where the change has occurred

¹ This process is not to be confused with the change from red to black, which, as is well known to the personnel of the excavations, takes place in red walls during the period immediately following excavation; it is due to the direct action of actinic rays. VITRUVIUS, vii, 9, 2, says of *minium*: *apertis quo sol et luna possit splendores et radios inmittere, cum ab his locus tangitur, vitiatur et amissa virtute coloris denigratur*; and he cites an instance. He means cinnabar: cf. PLINY, *N. H.*, xxxiii, 115 f., for the interchange of terms. So PLINY, *N. H.*, xxxiii, 122, of «*minium*», really cinnabar: *inlito solis atque lunae contactus inimicus*, and he tells how to prevent this; as to the effect of heat, he had just said: *probaturo auro candente, fucatum enim nigrescit sincerum retinet colorem*. Instances of this change are to be observed as follows, and there are doubtless many more: I, vi, 4, the splendid room with the elephants. V, v, 3, *Casa dei Gladiatorum*, in a small room to the right of the peristyle, where the red panels are now turning black in such a way as to show brush-lines. VI, xv, 2, *Domus Vettiorum*, at the entrance of the famous *oecus* and at several other points in that room. IX, xi, 1-4, *Domus M. Obelli Firmi, Casa del Conte di Torino*, in the large room, *oecus*, opening off the back of the peristyle, and the small room to its west. The former of these rooms is especially instructive: the east and south walls show this change to a height of about five feet from the floor, and to a greater height in the front part of the east wall, which naturally has been more exposed to direct sunshine since excavation (for the house faces somewhat west of north). The west wall, on the other hand, has been reconstructed from fragments, in most of which the body has changed from red to black, while the edges at the fractures have remained red; some are still all red; others are all black; we may conclude that the black fragments have been exposed to sunlight since excavation, while the red ones have been protected;

and it is clear that this change took place after the wall had collapsed.

The *Villa dei Misteri* also exhibits some instructive instances. The red walls of the famous Mystery room are not free from the change, at irregular intervals. (MAIURI, *V. d. M.*, colored plates). It appears in the small *cubiculum*, 8 in the plan, Tav. A, of MAIURI, *La Villa dei Misteri*, opening off to the northwest of the small *atrium* in the southern part of the villa (*op. cit.*, p. 183, fig. 70); in the great *atrium*, on the north side of which there are six panels of the main dado which have changed from red to almost black, except for considerable areas of pink which is due, as will be explained below, pp. 46 f., to the loss of the surface coloring; and again, in the charming fantastic miniature room to the north of the great *atrium*, indicated as 16 on the above-cited plan.

It appears possible to follow this change from red to black in actual course of development in the east wall of the *atrium* of I, vii, 2-3, where the sunlight falls which enters through the reconstructed *compluvium* (observed at 3:15 p. m. of May 23, 1931): the black which is now visible on the red at this point may be occasioned by the direct action of the actinic rays; though the same point on the wall would have been equally exposed in antiquity, assuming that the modern restoration of the *compluvium* corresponds exactly to the ancient arrangement.

² E. g., M. DELLA CORTE, *Pompei, i Nuovi Scavi e l'Anfiteatro*, Pompei, 1930, p. 24, referring to I, vii, 2-3.

³ In this instance, the hypothesis of a conflagration is excluded by the observation, at the time of the excavation, of quantities of wood which had been not burnt by fire but «carbonised» by the slow action of dampness; for the distinction between the two processes, see M. RUGGIERO, in *Pompei e la Regione Sotterrata dal Vesuvio nell'anno LXXIX*, Naples, 1879, i, 26.

at a height of from four to eight feet on the north and west walls near the northwest corner ; and in the rooms about the *atrium* of IX, viii, 2. The hypothetical fires in some of these houses may possibly have occurred at some date previous to the catastrophe of 79 A. D. We are forced however to conclude that the presence of these two sets of phenomena in juxtaposition in the houses in question is purely fortuitous: for, to anticipate the course of our argument, if it is true, as we shall see later, that the effect of flames or heat from burning timbers would be to turn yellow to red, on the other hand this phenomenon should be accompanied by the circumstance that the areas of such changes would be not in streaks bounded by curved edges — complete curves, closed, like normal stains, — but in jagged stains.

I, vii, 10-12, *Casa dell'Efebo di Bronzo*, again, presents an actual instance, in the small room at the east end of the south side of its southern *atrium*, of the effect of flames on cream-colored walls: these have been discolored black in irregular areas. And in II, v, 2, *Domus M. Lorei Tiburtini*, the burning of the wooden framework of the shrine shown in DELLA CORTE, *Pompei, i Nuovi Scavi*, Pompei, 1930, p. 69, fig. 30, seems to have produced a slight smudge of the white surface and to have turned the red to a blackish brown. For our purpose, however, a more apposite instance is that of I, vi, 7, *Fullonica Stephani*, where the northern part of the east wall of the *triclinium*, according to appearances, has suffered from fire, which has smudged the white, has corroded away part of the red and black, but has not changed the yellow to red.

If the action of fire should be recognised, these last three instances are clearly due to fires of strictly limited extent and intensity: a great conflagration would have entirely ruined the houses.

The lay mind is peculiarly susceptible to the notion that the red discoloration of yellow walls is due to the action of flames, when confronted with a number of instances in which the change takes place in the immediate vicinity of (former) woodwork, or where woodwork might be supposed, rightly or wrongly, to have once existed, such as window-frames and door-jambs: it is so easy to imagine the woodwork becoming ignited and thus affecting the stucco! Such instances are to be seen in, *e. g.*:

VI, xi, 10, *Casa del Laberinto*, the entrance, to the right of the door, where the extreme right of the yellow base panel has turned red.

VI, xvi, 7, *Casa degli Amorini Dorati*, the room of the *Amorini Dorati*, where a flame-like discoloration runs round to the inner surface of both the door-jambs, and also the left jamb of the window to the right; here one could think of flames from burning rafters that had fallen from the roof of the peristyle.

VII, ix, 47, the large room with the religious painting: ¹ here the front part of the

¹ M. DELLA CORTE, *Iuventus*, Arpino, 1924, 90-97, pl. 1.

right wall and the adjacent front spur-wall are discolored from a height of four feet above the floor, and the front part of the left wall from a height of ten feet shows red patches in the yellow surface, while there are similar spots at the very top of the inner surface of the adjacent spur-wall and of the end surface of the same.

Also, in the bakeshop, IX, i, 3, the wall on the north side of the door to the room to the north, in a similar position.

Again, in VII, xii, 15, *Caupona Paridis*, in the south room, on the east wall, in the vicinity of the window-opening, at a height of from three to four feet above the floor.

There is a somewhat similar case in the bar on the south side of the *Strada di Nola*, opposite the *Taberna Felicionis L. P. I. s.*: here there are three instances where yellow has changed to red in the immediate proximity of holes for wooden beams which projected so as to support a shelf.

But the most striking instance in this regard is the street-front of VII, xv, 4-5 (Pl. 13, Fig. 3, shows its western portion): the whole house-front, facing south, was stuccoed yellow above the first six feet of red dado; and this yellow has turned red above and beside the door and window openings in such a way as to suggest forcibly, to any one who has actually witnessed a house burning, that the discoloration was caused by flames pouring out of these openings.

We cannot exclude, in some instances, the action of lightning (such as is mentioned by PLINY, *Ep.*, vi, 20, 9 and is recognised in general as a concomitant of eruptions)¹ and scoriae;² but either of these agencies would have created greater havoc than is usual in Pompeian houses. There has been a tendency to find more in PLINY'S letters than a careful reading will justify.³

A very different and even more terrifying agency has been suggested⁴ as responsible for these changes: namely, a fiery blast from Vesuvius. In connection with the eruption of Mont Pelée in 1902, many instances were observed of a change from yellow ochre to red in portions of the painted wall surfaces; and it appears to be the opinion of experts that these were caused either directly by a hot blast or else by resultant conflagrations. I know the phenomena of the eruption of Mont Pelée only through PROFESSOR MERRILL'S valuable articles, and do not feel competent myself to discuss them; with regard to the instances of discoloration at Pompeii however it does not appear necessary to resort to the hypothesis of a hot blast, in view of the occurrence of similar changes from yellow to red in the house-walls of Ostia and Rome, which have remained free from exposure to such influence.

¹ A. SCACCHI, *Le Case Fulminate di Pompei*, in *P. e la Regione Sotterrata*, i, 117-129.

² M. RUGGIERO, *op. cit.*, i, 28 f.

³ E. g., M. BARATTA, «*La Fatale Escursione Vesuviana di Plinio*», in *Athenaeum*, xix, 1931, 71-107.

⁴ By the late PROFESSOR E. T. MERRILL, in *A.J.A.*,

xxii, 1918, 304-309; xxiv, 1920, 262-268; the attractiveness in general of his theory of a hot blast as one of the concomitants of a late phase of the great eruption of 79 A. D. appears seriously affected by the considerations advanced in the present article.

At Ostia, this change can be observed in the well-known house in Reg. II, Ins. vi, with architectural paintings.¹ These patches appear also on the north wall of a small room in the tenement in Reg. I, Ins. iv, lying to the north of the entrance of the *Casa di Giove e Ganimede*.²

In Rome, the Flavian palace on the Palatine provides at least three irregular patches, within two feet of the floor, on the west wall of a room opening to the west from the area marked A in the plan, *Not. d. Scavi*, 1929, pl. 2, somewhat to the north of the northernmost door leading to the group of rooms which includes the «*Lararium*».

Before venturing further toward the explanation of these curious stains, it is essential to present, topographically arranged, the inventory of the further Pompeian instances of which I have knowledge; this inventory makes no claim to completeness, nor does it appear that completeness is requisite; it does however contain a sufficient number of instances to warrant confidence that it affords a fair idea of the character of these discolorations.³

I, vii, 2-3: The change is observable at the southeast corner of the *atrium*. The yellow wall to the east of the *viridarium* has changed to red in a vertical flare, with the yellow still preserved on each side of it; at the north corner of the wall the stucco has now partly disintegrated and turned to white. This is a striking instance of a flame-like effect. There are two similar instances, one on each side of the entrance to the *triclinium* to the south of the *viridarium*. Here there was no wooden door-frame on the east side, where a portion of the white stucco in its normal place is preserved, and the same seems to have been true of the west side, where the under coat of stucco received a preparation of picking for the application of an upper coat. (As already implied, p. 41, the white stucco of the doorposts on each side of the door is partly blackened by fire, presumably from the burning of the wooden door itself.) Again, in this same house, the west, north and east sides of the *cubiculum* to the east of the *viridarium* show the change from yellow to red in broad stretches irregularly distributed; but there are also brown and blackish discolorations on the south and east walls, at a height of about two feet above the floor, which seem due to fire. It is important to observe that the white and green paint of the decoration applied to the parts which are now red is absolutely undamaged; this demonstrates that in these parts of the wall the alteration of color was not due to flames.

In the *Casa di Menandro* there are several striking examples in the rooms to the east of *atrium* and peristyle.

III, iv, *Domus Pinarii Cerialis*, *Casa d'Ifigenia*, in the room with the theatrical representations: the east wall has an almost horizontal streak in the base dado which has changed from yellow to red; but in continuation of this same discoloration, in other parts of the dado, green has changed to darker green and white to blackish; there are no indications of flame.

¹F. FORNARI, in *Studi Romani*, i, 1913, 308-311; room XI on G. CALZA'S plan in *Mon. Ant.*, xxiii, 1914, pl. 1.

²*Casa di Bacco Fanciullo*; *Casa II* of CALZA'S plan in *Mon. Ant.*, xxvi, 1920, pl. 1.

³The following are excluded:

II, i, 2, on the front wall, from a height of one foot above the floor. This instance may serve as a warning to observers, as it is quite clear that the change from yellow to red is due not to the discoloration with which we are concerned but to painting.

V, iii, 11: in the large room to the southeast of the *atrium*, all the panels show red under the upper coat of yellow; the red appears partly in patches; here it would require perhaps more technical study to determine whether

this case should enter into our discussion, or whether it is merely an instance of repainting yellow on an earlier surface of red paint.

V, v, 3, *Casa dei Gladiatori*: in the large *oecus* or *schola* to the west of the peristyle, the central panel on the south wall was originally red; then a coat of yellow was applied (in a later redecoration apparently); now the red shows through, especially in the upper part; and similarly in the central panel of the west wall.

VII, ii, 16, *Domus M. Gavi Rufi*: on the street-front, the surface of the red stucco has disintegrated in streaks: the result is either mottled white or pale greenish yellow, this latter tint being certainly due to a minute vegetable growth and hence not a true case in point for our present study.

V, i, 26, *Domus L. Caecili Lucundi*; in the *tablinum*, on the west panel of the south wall, the whole of the yellow surface is turned to red, but the white and other colors on the same wall are unaffected; this is in agreement with the above observation at I, vii, 2-3, and we may now by anticipation note that it accords with the theory, to be expressed at a later point (pp. 49, 52), that the change developed from the interior, not the outside, of the wall.

V, ii, the house next to the west from the *Casa delle Nozze d'Argento*, known as *Casa del Gran Sacerdote*:¹ the back wall of the *atrium* is spotted red on the body of yellow, from four to six feet above the floor.

VI, i, 7, *Casa delle Vestali*: in the room on the street, to the north of the *fauces*, to the right of the door, the red stain on the yellow ground originates and expands above the floor. The change occurs also at the south end of the west wall of the peristyle at the north end of the house.

VI, ii, 17: it occurs in the *tablinum*.

VI, xvi, 7, *Casa degli Amorini Dorati*: on the sides of the entrance to the room of the *Amorini Dorati*, the upper part, from a height of two to three feet, has changed from yellow to red; the special features of the entrance opening have been described above, p. 42.

VII, ii, 11, *Officina Uboni Offectoris*: on the east and south walls of the small room at the northeast corner of the establishment, yellow has changed to red in little flame-like points at a height of about three feet above the floor.

VII, ii, 16: in the main room behind the peristyle, at the north end of the east wall, the red stain originates at the floor level and then expands as it goes upward. Here, however, the front part of the wall, next to the pilaster, remained yellow: in itself considered, this might have been due to protection by a layer of lapilli penetrating from the peristyle at the time of the eruption, in its earlier phases, and could be interpreted as lending color to the theory of the hot blast, especially as this room faces roughly the north and Vesuvius. And yet the distribution of the red stain would lend itself equally well to the theory that after a layer of lapilli had fallen on the part nearest the opening on to the peristyle, blazing timbers had fallen into the room.

VII, ii, 18, *Domus C. Vibii*: yellow has changed to red in two small patches, about six feet above the floor, in the second *cubiculum* to the east of the *atrium*.

VII, ii, 23: a distribution of the stains, similar to that in VII, ii, 16, occurs from about four feet above the floor on the front part of the front panel of the right wall of the *tablinum*.

VII, ii, 35, *Casa di Mercurio*: in the second room to the east of the *atrium*, from 1 1/2 to 4 feet above the floor.

VII, ii, 51: at the southeast corner of the *tablinum*, at a height of from 6 to 7 feet above the floor, for a horizontal distance of 2 ft. on the east wall and 2/3 ft. on the south wall.

VII, iii, 2: starting at a height of 2 ft. above the floor at the front of the room, and rising to 5 ft. near the window at the back; the window now is blocked, but perhaps this is due to modern systematisation.

VII, iii, 3, in the third room from the street, from which it is visible: at one point the red begins 1 1/2 ft. above the floor; at another, the line of demarcation between yellow and red is vertical.

VII, iv, 29: in the small room in the northwest corner, the wall above the moulding, on the west side, shows red spots on yellow, as if due to the burning of rafters.

VII, vi, 14, on the south wall, by the southwest corner, from a height of 2 feet above the floor.

VII, vii, 17: in this unusually interesting house, in the *triclinium* at the extreme southeast corner of the edifice, the east panel of the north wall has the change from yellow to red, solid, from the height of 3 ft. above ground; the central panel of the same wall is now red save for a vertical streak of yellow, about 8 inches wide, at its middle. On the south wall, the second and fourth panels from the east show yellow turned to red at the bottoms of the panels; in the second panel from the east, this has occurred in a flame-like fashion. In parts of this room, the white borders have partially flaked off in contact with the yellow which has turned to red; but it is essential to note that the bits of white which still adhere to the wall in these same areas have not turned color; this appears to exclude the action of fire and suggest chemical agencies working from within outwards.

VII, ix, 29: the change is entirely irregular in distribution.

¹ Photograph, Alinari, no. 34541.

VII, xii, 26, *Domus L. Corneli Diadumeni, Casa di Elena e Paride* : in the large marble-paved room at the northwest corner at the back of the peristyle ; here the yellow and red are distributed in horizontal patches across almost the entire width of the back wall, 8 to 10 ft. above the floor, as if in defiance of the above-mentioned theories of fire and hot blast.

VIII, ii, 18 : the back walls of *atrium* and *tablinum*, from 2 to 8 ft. above the floor ; here there is some yellow higher than some of the red.

VIII, ii, 26, *Casa del Cignale* : in two rooms facing south, on each side of the south end of the *atrium*, the change from yellow to red is found on whole walls, beginning about 2 to 4 ft. above the floor.

VIII, iii, 12 : in one room to the southwest of the *atrium*, yellow has turned to red in irregular patches, some of them only one or two feet above the floor.

In the same house, in a room to the west of the *atrium*, there is a regular horizontal line about 5 ft. above the floor, where horizontal red patches begin ; but some of those on the north wall are at lower levels ; and on the south wall there is another series of horizontal red patches at a height of about 9 ft. above the floor.

VIII, iii, 14 : on the wall between the pillars of the *atrium*, the red begins at 2 ft. above the floor.

IX, i, 3 : at the north end of the east spur wall as one goes to the back part of the bakeshop ; at the very corner, the red appears at a higher level than the yellow.

IX, i, 8 : on the south wall of the south room at the back of this *thermopolium*, the red appears in patches from 1 to 4 ft. above the floor.

IX, iii, 5, *Domus M. Lucreti* : in the famous *triclinium* to the southeast of the *atrium*, and also in its antechamber, there are the most striking effects of discoloration. All about the *triclinium*, at a height of 4, 6 and 8 ft. above the floor, and somewhat irregularly, the yellow has changed to red. At the back of the *triclinium*, there is a band of red like a festoon, above which again appears the yellow. At the right of the room, the red patches begin 6 inches above the floor ; then at a height of 18 inches the yellow appears again. The west panel of the north wall of this room, with its successive bands of yellow and red, baffles description.

IX, iii, 19 : in the room to the west of the square entrance-room, from 2 to 3 ft. above the floor.

IX, v, 9 : several walls about the peristyle show an extraordinary variegation in large stretches, running both horizontally and vertically ; only in one little place however is the red found below the yellow. In the walls both in front of and behind the peristyle, and also in the large room opening off behind the peristyle, the change occurs at a height of 4 to 6 ft. above the floor ; but in the middle back part of the room mentioned, there are also two spots of red among the yellow at a height of 2 ft. The front of the pilaster to the left of the entrance to the same large room shows the change running along its right edge. The wall in front of the *atrium* shows the same change at 6 ft. above the floor.

IX, v, 11 : in one panel of the southwest wall of the *atrium*, starting 4 ft. above the floor.

IX, vi, the house on the north side of the street opposite to IX, vii, 26 : there is an instance on the west wall of the *tablinum*, 3 to 7 ft. above the floor.

IX, vii, 20 : the front wall is changed from yellow to red in patches 5 to 7 feet above the floor.

IX, viii, in the second opening from the street to the north of *Domus P. Aemili Celeris*, on a side street to the south of the *Strada di Nola*, at the bottom of the inner right corner of a bedroom, red appears on the border, except for yellow at the top (4 ft. from the floor) and the bottom ; and there is a somewhat similar appearance at the second opening to the right of the entrance corridor.

IX, xi, 1-4, *Domus M. Obelli Firmi, Casa del Conte di Torino* : the eastern pilaster of the opening from the western *atrium* to its *tablinum* : there is a solid red patch which slopes downward as it goes in from the *atrium*, at a height of about 8 ft. above the floor.

To sum up : These patches are of various irregular shapes and dimensions ; they always end in smoothly curving edges (« cloud-like »), are never sharply angular in outline ; frequently they are in the form of horizontal or slanting lines ; sometimes they adjoin and follow the vertical edges of openings.

It is noteworthy that so large a proportion of the cases recorded lie at a height of from two to four feet above the floor; but it should be remembered that a large proportion of the stucco surfaces of the Pompeian walls are at present not preserved to a great height.¹

Here must be recorded some phenomena of a different character, which still have a certain bearing on our problem:

There are several instances where the surface of a yellow stucco wall has disintegrated and revealed the fact that the body of the wall is pink in color: this indicates that in the preparation of the under layers for such yellow walls there was a choice of pink ingredients.

Thus, in the *apodyterium* of the *Terme del Foro*, the backs of persons seated on the long benches have worn away the surface of the yellow stucco and left visible the pink of the body of the wall.

In the instance of the south wall of a large room toward the back of VII, ii, 48, where the pink body has been revealed by the disintegration of the yellow surface, it is to be observed that the adjacent red panel likewise has its pink patches due to the same cause, but that the adjacent white panel has no pink, indicating that the body of the stucco beneath the white color lacked the pink elements: there was an adaptation, in laying the under coat of stucco, to the color which it was intended to apply to the surface.

In the great *atrium* of the *Villa dei Misteri*, where, as was stated above, p. 41, six of the red panels of the main dado have changed almost black, there are considerable areas of pink, due to the surface color having disintegrated.²

Again, VI, i, 7, *Casa delle Vestali*: in a northerly *atrium* of this rambling house, the whole surface of the south wall, at a height of *ca.* 4-6 ft. above the floor, exhibits a state of disintegration, and instead of the yellow surface there is to be seen a pink or reddish color, due to the materials in the body of the stucco. On the east wall the effect is somewhat different but the conditions appear to be essentially the same.

VI, xi, 10, *Casa del Laberinto*: in the southeast corner room off the peristyle there is another instance of pink appearing from beneath yellow.

VI, xv, 14: both sides of the entrance door exhibit similar traces.

Black walls, however, turn to white: *i. e.*, the disintegration of the black surface reveals a white body of stucco beneath. A fine example can be seen on the eastern part of the south side, and also at other points, of the wall of the peristyle of III, ii, 1, *Domus A. Trebi Valentis*; and the room in IX, v, 18, which has been studied above, pp. 38-40, for another

¹ The related phenomena of the walls of Herculaneum have not been recorded here, partly out of regard for the *Soprintendenza*, to which belongs the first publication, partly because the circumstances of the burial of the two cities were somewhat different. The repeated visits to

Herculaneum, however, which I made with the kind consent of COMMENDATORE MAIURI, have only confirmed the impressions received at Pompeii.

² Part of this wall appears in MAIURI, *La Villa dei M.*, p. 46, fig. 12.

purpose, shows the change from the upper black to the under white in the central black band above the base dado of the west wall and also in a similar position at the east end of the north wall.

As to the cause or causes which have resulted in these curious stains, the thought naturally occurs that it may be profitable to consult the practical workers in stucco, whose own experience may have included similar instances. It was my good fortune, some years ago, in my efforts to obtain some light on this problem, to be able to profit by the experience of MR. ALFRED E. FLOEGEL, Fellow in Painting of the American Academy in Rome. He kindly informed me that when he was working on the decoration of a building for an exhibition at Leipzig, about the year 1910, similar red patches appeared all over the yellow surface of a certain ceiling; they were found to be pleasing in appearance, and hence were deliberately retained for their decorative effect; they were apparently due to the action of some chemical substance in the body of the stucco. Although Mr. Floegel did not have the opportunity of studying the Pompeian walls themselves with this problem in mind, he observed the similar stains at Ostia¹ in my company, and he was of the opinion that both these and the cases at Pompeii are due to a cause similar to that which he witnessed in operation at Leipzig.

By experiments also with modern materials he showed:

(1) That light cadmium yellow, when exposed to the flame from a gas jet, turns to a lightish orange color, but on cooling fades again.

(2) That darker cadmium yellow, when similarly exposed, undergoes no change in color.

(3) That "Pompeian red" stucco, made today by the encaustic method, when exposed to flame, is blackened; the black stain cannot be entirely removed by washing in water.

These three experiments by their results appeared to preclude the possibility that the discoloration at Pompeii was caused by fire; but it must be observed, first, that there is no certainty that the ancient Pompeian materials were identical in composition with those which served as the basis for the experiments; and secondly, that a different flame, or a different exposure, might conceivably have produced a different reaction. In reality, the difference in the form of these experiments, and the strong probability that the substances on which they were executed were of a different character from those used by the ancients,² deprive these experiments of practical value for the present purpose. Thus the experience of the modern decorators does not represent a true parallel, and is suggestive by analogy only. For a real demonstration, it is necessary to turn to the ancient world itself.

The capricious character of the discoloration in the Pompeian houses is obvious from the instances above enumerated, and suggests various theoretical considerations, some of

¹ Cf. above, pp. 43 f.

² On the natural cadmium of the ancients, see H. BLÜMNER, *Technologie und Terminologie*, 1st. ed., iv, 92-94.

Modern cadmium yellow is derived from modern cadmium, by a process invented in 1817.

which have been already formulated in passing. It may have been due in part to the irregular and uneven manner in which the chemical ingredients which caused the change had entered into the composition of the body of the walls; for the change certainly appears to have proceeded from within outward (*cf.* pp. 45, 52). In particular, the portions of the walls near windows and doors may have been more directly exposed to contact with and suffusion from these chemicals; and they were certainly more liable to be affected by influences of atmosphere and damp. Heat from conflagrations would have affected entire wall-spaces and if sufficiently severe would have destroyed them; fallen burning beams would have left sharp and blackened impressions; a hot blast from Vesuvius would have been expected to attack first the applied colors and then the body of the wall: none of these phenomena is characteristic of Pompeii.

Theory however is less required than experiment, or at least the latter should accompany the former. We cannot altogether subscribe to the view which has been advanced by some, that the walls of Pompeii themselves are no longer available as laboratory material for the solution of this question, because, as is suggested, during the nineteen and a half centuries which have elapsed since the eruption of 79, they have experienced profound chemical changes including the complete desiccation of such vegetable substances as they once contained: a view which would involve the essential futility of such an experiment as we have in mind at this late date with regard to the actual Pompeian material. For while desiccation may affect animal and vegetable substances, it should not alter the nature of earth or minerals, except by changing the proportion of water in their composition.

Wax was used by the ancients not only for the encaustic pictures¹ but also, on occasion, for vermilion surfaces;² the animal and vegetable colors which are attested³ were used either for panel pictures or in the other arts and crafts, especially the dyeing of stuffs. The substances however which were used in the decoration of normal wall-surfaces were pure earth colors.⁴

The actual composition of typical Pompeian wall colors has in fact long been known through the authoritative analyses which were published by DR. PARIDE PALMERI, in *Giornale degli Scavi di Pompei, Nuova Serie*, iii, 1874,-5, 159-166, and again in his monograph, *Ricerche Chimiche sulla Cenere lanciata dal Vesuvio a Portici e Resina la notte dal 3 al 4 aprile 1876 e sopra dodici colori solidi trovati a Pompei*, 2d. ed., Naples, 1877. From his important discussion, exigencies of space allow me to reproduce here only the following passage, which however will suffice to show the composition of these colors:

N. 158.

Questo campione contiene misti frammenti di due colori distinti; uno giallo e uno rosso, e ritengo per fermo, che accidentalmente sieno stati mischiati o al tempo del ritrovamento o ai tempi pompeiani. Per composizione quali-

¹ PLINY, *N. H.*, xxxv, 49.

² VITRUVIUS, vii, 9, 3 f.

³ VITRUVIUS, *ibid.*, 13 f.; PLINY, *ibid.*, 50.

⁴ VITRUVIUS, vii, 7-12; PLINY, *N. H.*, *ibid.*, 30-49.

tativa sono eguali : La rosso-bruna, che per finezza di polvere, per gaiezza di colore supera le altre, contiene in media centesimale :

Perossido di ferro	61,31
Allumina	8,70
Silice	24,51
Acqua	5,48
Fosfati	tracce
Calce	tracce

100.00

È dunque un'ocra ferruginosa, che dalla notevole quantità di acqua combinata che contiene sarei indotto a ritenere la naturale, mentre da un altro lato il suo vivo colore, i dati storici e la pratica attuale fanno pensare che sia ottenuta col riscaldamento di ocra ferruginosa. Chi ci dice se 18 secoli siano sufficienti per far entrare in combinazione una proporzione di 5,48 per cento, di acqua in un corpo, qual'è l'argilla ferruginosa, che non è restia a combinarsi? Io non ho ragione per dare il giudizio, ma ritengo più probabile che sia un'ocra bruciata, e che il tempo ha fatto sì che un pò di acqua vi sia combinato. Sarebbe la *rubrica* di Plinio (XXXV, 16.) « Nascitur autem et in ferrariis metallis ochra ; ex ea fit exusta rubrica in ollis novis luto circumlitis. Quo magis arsit in caminis, hoc melior ».

The generally accepted view that the irregular changes from yellow ochre to red are due to fire received scientific expression from M. RUGGIERO, in *Pompei e la Regione Sotterrata dal Vesuvio nell'Anno LXXIX*, Naples, 1879, 27 :

il color giallo dei muri qua e là mutato in rosso, ordinario effetto del fuoco che toglie l'acqua al sesquiossido di ferro idrato.

In order however to determine by positive means the effect of fire on such walls, an experiment was conducted on October 7, 1931, at the *Casa di Menandro* in Pompeii, through the courteous cooperation of the *Soprintendenza*, in the presence of Ingegnere Luigi Jacono, Cavaliere Carlo Davino, *Capo delle Opere di Pompei*, Mr. Chandler Shaw of the American Academy in Rome, and myself. Fragments of stuccoed walls from that house were exposed to the flames from a fire of wooden faggots in a brazier in the open air, care being taken to protect a portion of each fragment from the flames in order to preserve that part of its surface from the effect of the experiment. The results are indicated in Pl. 12, Figs. 2-5.¹ Fig. 1 shows a fragment of yellow ochre surface, part of which had been changed to red by natural causes.² Of the material from the experiment, Figs. 2 and 5 exhibit the change from yellow ochre to red caused by exposure to the flames for half an hour ; Fig. 3, a surface originally red which on a similar exposure to the flames became a somewhat more intense red, and at certain points became a dark or sooty red (owing presumably to its becoming penetrated by sooty substances from the smoke) ; Fig. 4, an originally white surface which remained white on exposure to the flames, and showed no sign of turning color, so that it was not considered necessary to expose it for the full half hour. The moderate amount of soot from the smoke which had adhered to these surfaces at the time

¹This colored plate was executed in Rome, under my personal supervision, at one-half actual size, by the *Istit. Poligrafico dello Stato*, to which our best thanks are

due for placing its technical competence at our disposal.

²Cf. above, pp. 41, 44, for the changes observable on the walls of this house.

of the experiment yielded (with the exception above noted) to washing and need not be regarded for our purpose.

The conditions of this experiment, then, reproduced approximately those which we assume for those Pompeian houses in which, at the time of the eruption, the fallen woodwork of the upper stories had become ignited by flames from stoves and braziers, producing isolated fires which would burn for about half an hour before the small amount of woodwork was consumed. And it demonstrates that the result of such conditions is the change from yellow ochre to red, from red to more intense red, while white remains unchanged.

Fire, then, is one agency capable of producing the change in question, as has now been positively demonstrated. But, as already stated,¹ there are indications which exclude its action in the majority of instances at Pompeii; to which there must now be added two irrefutable arguments: first, our negative demonstration that white surfaces, when exposed to the flames, remain white: this proves that the instance above recorded² where white has changed to a greenish tone concomitantly with the change from yellow ochre to red is due, not to fire but to some other cause; and, second, an observation which has been made in connection with the new excavations at Herculaneum: there the change from yellow ochre to red occurs on a large scale, and since that city was buried by streams of mud³ and all the rafters of the houses remain in place, and in particular in those very rooms where the change occurs, the agency of burning rafters is excluded.

Our thoughts next turn to a phenomenon well-known to the personnel of the excavations, *i. e.* the gas which exists in large quantities in the subsoil of the Vesuvian region, and which vulgarly is called *mofete*, its scientific denominations in its various forms being carbonic acid, carbonic nitrate, and carbonic anhydride: an element which will melt glass as fire does.⁴ The late Professor FERRUCCIO ZAMBONINI, *Rettore Magnifico* of the University of Naples, when consulted as to this possibility a short time before his lamented death, at first expressed a negative opinion, but finally, at the request of Commendatore Maiuri, he was so good as to conduct the experiment of exposing a piece of yellow ochre stucco to the action of very dry carbonic anhydride for more than ten days, after which time it presented, in comparison with another fragment which had been kept in fresh air, a very slight tinting or lowering of tone, which, in his opinion, appeared to confirm that in the course of time such a change might really come about. The piece of white stucco, however, which was exposed together with the yellow ochre presented no indication of change of any sort.

There is however at least one other agency, and that an important one, to which these

¹ Above, pp. 42, 44-46.

² Above, p. 41.

³ The material which buried Herculaneum is homogeneous, from the street pavement to the top: the ob-

servation of M. BARATTA, in *Athenaeum*, xix, 1931, 89 f., is erroneous.

⁴ Cf. RUGGIERO, *op. cit.*, 27 f.

walls have been exposed in the course of ages, and which may have produced the change in question. This is humidity, which, as we have seen, and as was noted by PALMERI in the passage above quoted,¹ enters in various degrees into the composition of these colors, and with which, naturally, the body of the wall itself might easily become impregnated.² That water does actually determine the change in ferrous hydrate from yellow ochre to red, at a normal temperature, in the course of 15 years, was demonstrated long ago by the distinguished PROF. HUGO SCHIFF, who published his results in LIEBIG'S *Annalen der Chemie und Pharmazie*, 1859, 110-203. This important article was kindly cited to me by the chemical expert, PROFESSOR ALDO MAFFEI, of the *Reale Scuola d'Ingegneria* in Rome, who is familiar with the scientific elements involved, and in the light of his specialized knowledge has been so kind as to supply the following statement:

Esistono diverse forme di ossidi e di idrati di ferro. Ciò che può interessare dal nostro punto di vista è il fenomeno di allotropia che è stato studiato da Péan de St. Gilles. Esistono cioè forme di idrato ferrico caratterizzate da affinità differenti:

I. Se l'idrato è ottenuto a freddo da un alcali per un sale di ferro, si ha un'idrato il cui colore varia dal giallo al bruno, solubile negli acidi, che dà la reazione del ferrocianuro.

II. Se si fa bollire l'idrato precedente per parecchie ore con acqua, il colore da giallo ocraceo diventa rosso mattone simile a quello dell'ossido calcinato. È attaccato solo dagli acidi (nitrico e cloridrico) concentrati e bollenti. La composizione di questa varietà è $\text{Fe}_2\text{O}_3\text{H}_2\text{O}$ (la prima $\text{Fe}_2\text{O}_3\text{H}_2\text{O} = 2\text{Fe}(\text{OH})_3$).

Pare però che la differenza, più che nella composizione, debba riconoscersi in un fenomeno di allotropia. Difatti si constata che dopo pochi minuti di ebollizione l'idrato acquista già la composizione $\text{Fe}_2\text{O}_3\text{H}_2\text{O}$, ma le proprietà chimiche sono ancora quelle primitive di $\text{Fe}(\text{OH})_3$. Non è che dopo parecchie ore di ebollizione che, pur non variando notevolmente la quantità di acqua combinata, i caratteri della prima varietà scompaiono totalmente. L'ebollizione non è assolutamente indispensabile per ottenere la trasformazione; essa non fa che renderla più rapida. Schiff osservò la stessa trasformazione su un ossido conservato 15 anni sotto acqua.

La trasformazione di un ossido o un idrato ferrico (ocraceo) in una varietà rossa avviene certamente per azione delle alte temperature; però può avvenire anche per altre cause e in altre condizioni, e senza dovere ricorrere al fuoco. Data la grande varietà di ossidi e idrati che si conoscono, e la trasformabilità di esse per azione di diverse cause, anche per semplice azione dell'acqua a temperatura ambiente o riscaldata si può spiegare la trasformazione di una forma gialla ocracea in una forma rossa.

L'azione dell'acqua per lungo tempo, specialmente di acqua calda facile a prodursi in zone vulcaniche, o anche (se potesse provarsi) l'azione locale e prolungata di un debole calore (fenomeni secondari di vulcanismo) potrebbe spiegare la trasformazione senza bisogno di ricorrere all'ipotesi dell'azione di alte temperature.

The essential conclusion, then, of this matter, in so far as we have been able to arrive at a conclusion at the present time, is as follows:

I. The change from yellow ochre to red may be caused by fire; it was actually caused in this way in certain instances at Pompeii, either before or during the eruption of the year 79 A. D.

¹Pp. 49 f.

²My own impression (above, pp. 45, 49), that a process was at work «from within outward», may have

been due to the action of dampness which had first permeated the body of the wall from above or the side and then attacked the surface colors.

II. The same change may be caused by the slow action of water at a low temperature: this was probably the case in many instances. The effect of humidity might have been already in operation before the eruption of 79 A. D., but water probably continued its slow action during the succeeding centuries.

III. As to the action of carbonic anhydride, this is not as yet adequately demonstrated, but should be borne in mind by future investigators. Seeing that this region is full of volcanic matter originating at various periods, a question might theoretically be raised as to whether such action may have been already in operation before the eruption of 79 A. D., or may have started after that date. By reason of its heavy nature, however, this gas, in the period before the eruption, could hardly have risen above the cellars and invaded the living quarters of the houses; its presence, besides, would have caused the death of the inhabitants. Moreover, since the injection of this gas in volcanic territory is recognised as a post-eruptive phenomenon, and the interval separating the eruption of 79 A. D. from its last predecessor was one of immemorial ages of human life, it is practically certain that the gas from the earlier eruption had become dissipated before the last days of Pompeii. Our suggestion is rather of a slow action in the course of the centuries subsequent to the famous eruption.

IV. Apart then from possible sporadic fires, we are not dealing with concomitants of the eruption itself, though probably in part with its consequences.

V. The instances of the change from yellow ochre to red which have been observed in Rome and Ostia¹ may have been due to either fire or moisture.

VI. The action of still other agencies is not excluded, and may form the subject of future study.

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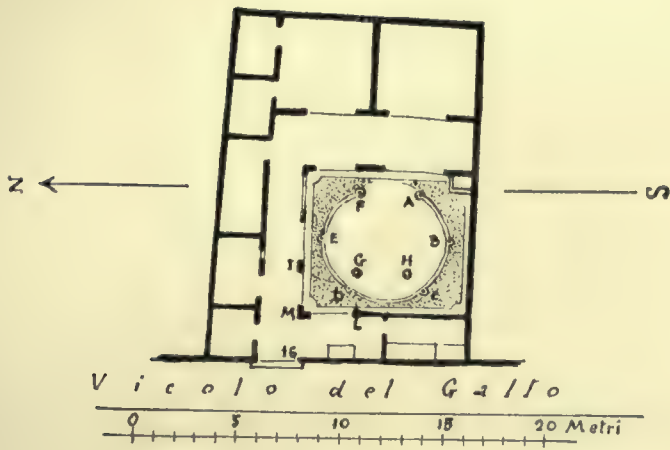
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¹ Above, pp. 43 f., 48.

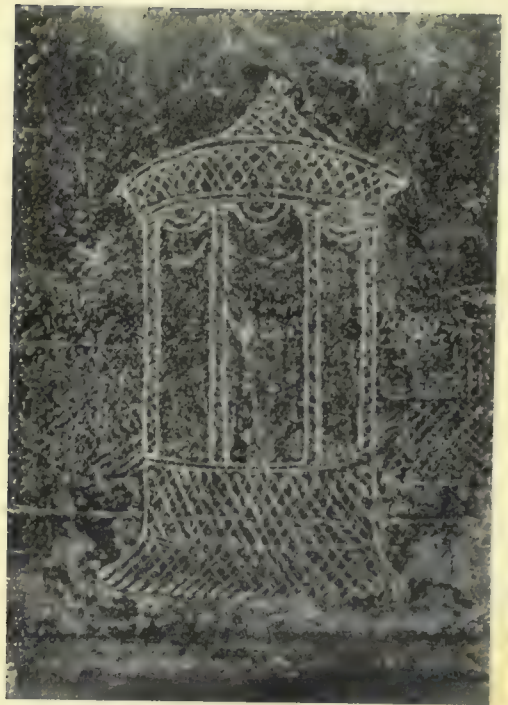
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Plan by Ingegnere L. Jacono.



2. Painting in I, iv, 25. See p. 10.
Photograph retouched by Ingegnere L. Jacono.



3. VII, vii, 16: Garden, from the Northwest. See pp. 10-13.
Courtesy of Ingegnere L. Jacono.



1. Missiles in the Museum of the Forum. See pp. 15-17.



2. Missiles outside *Porta Ercolano*. See p. 16.

Detail from PIRANESI and GUATTANI, *Ant. de la Grande Grèce*, i, pl. 5.



1. The *Cubiculum g*, with Remains of Terra-cotta Revetment. See pp. 25, 27, 32.



2. Detail of the Revetment above mentioned.



2. Room 4, Southeast Corner. See pp. 25-27.



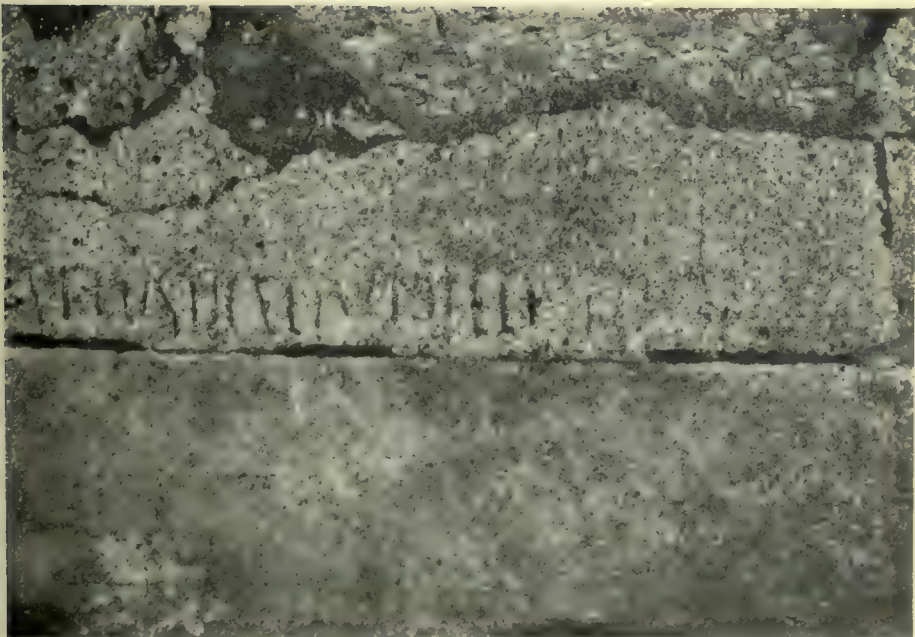
1. Room 4, Northeast Corner. See pp. 25-27.

POMPEII: *Domus Vettiorum*.

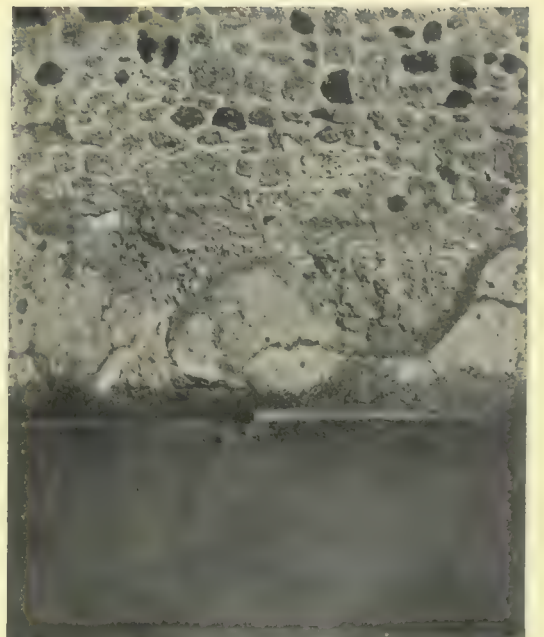




1. The Line of Juncture on the West Wall. See pp. 27f.



2. Inscription near the Line of Juncture. See p. 27.



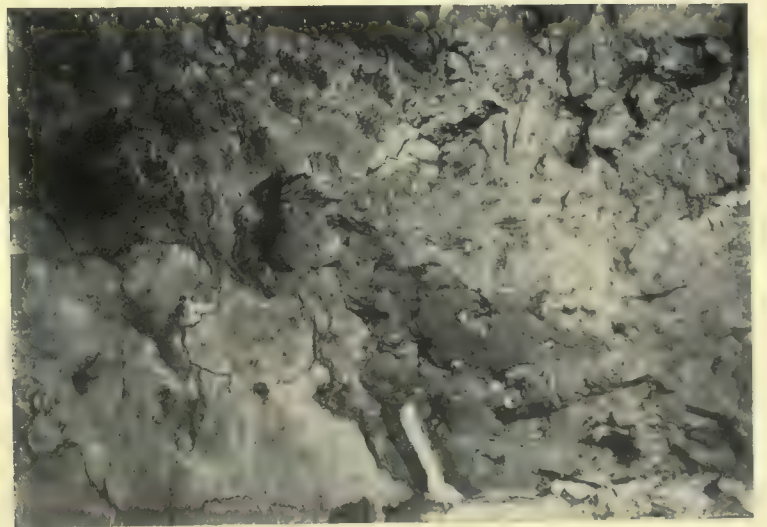
3. Detail of the Middle of the West Wall.



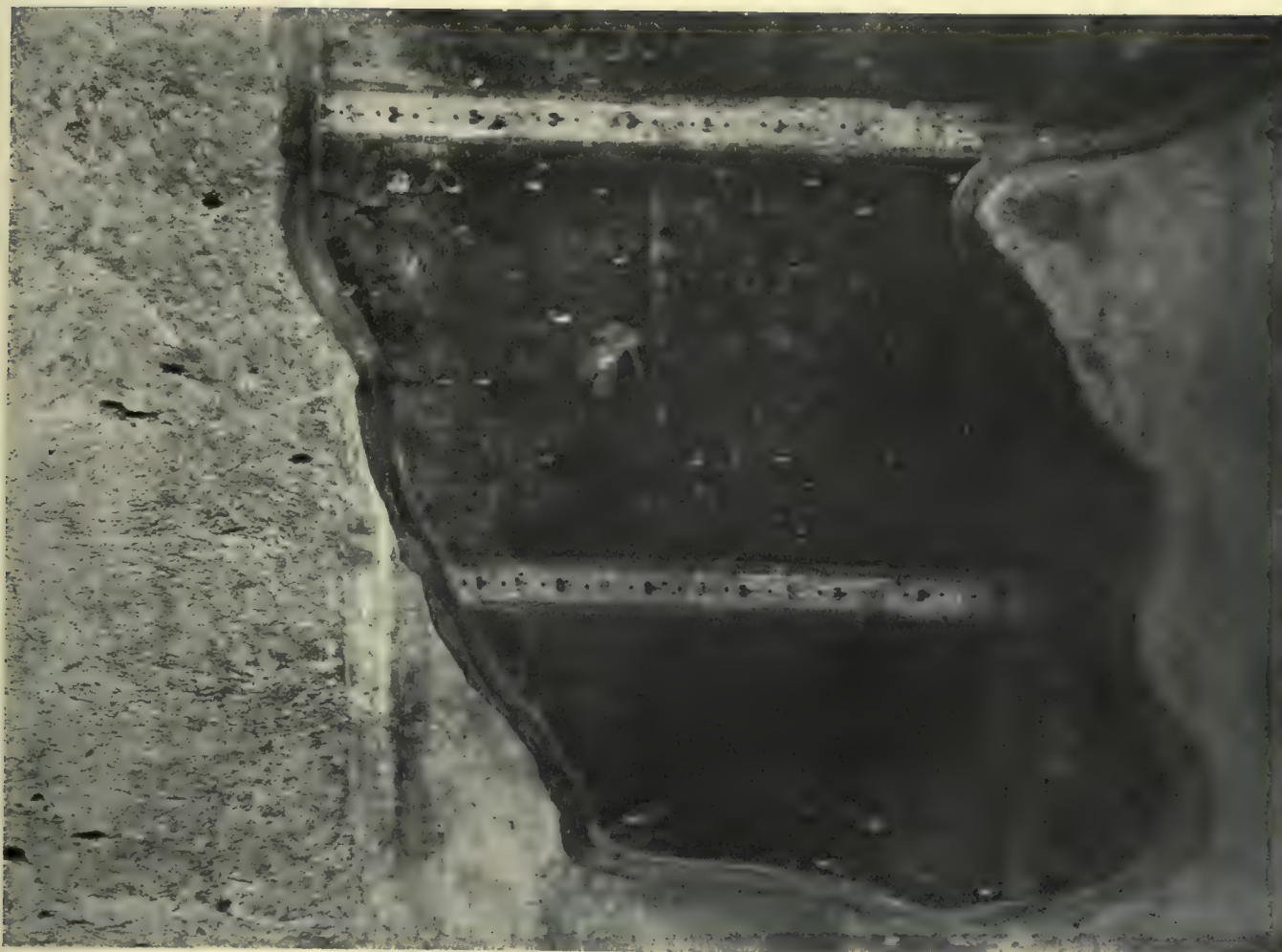
1. VII, ii, 6, *Domus Terenti Neonis*. See pp. 30f.



2. III, ii, 1, *Domus A. Trebi Valentis*: West End of *Caldarium*. See p. 36.



3. Detail of the Same. See p. 36.



2. Detail of West Side.



1. Southeast Corner.

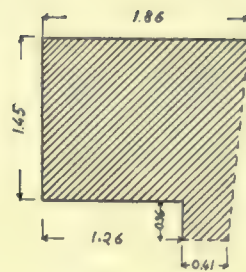
POMPEII: I, vi, 10: Room behind Shop. See pp. 32f.





Scale 0 1 3m

1. Plan, Detail from *Mon. Ant.*, xxxiii, 1929, pl. vi.



Scale 0 1 3m

2. Plan of *a''*, redrawn at Double Scale.



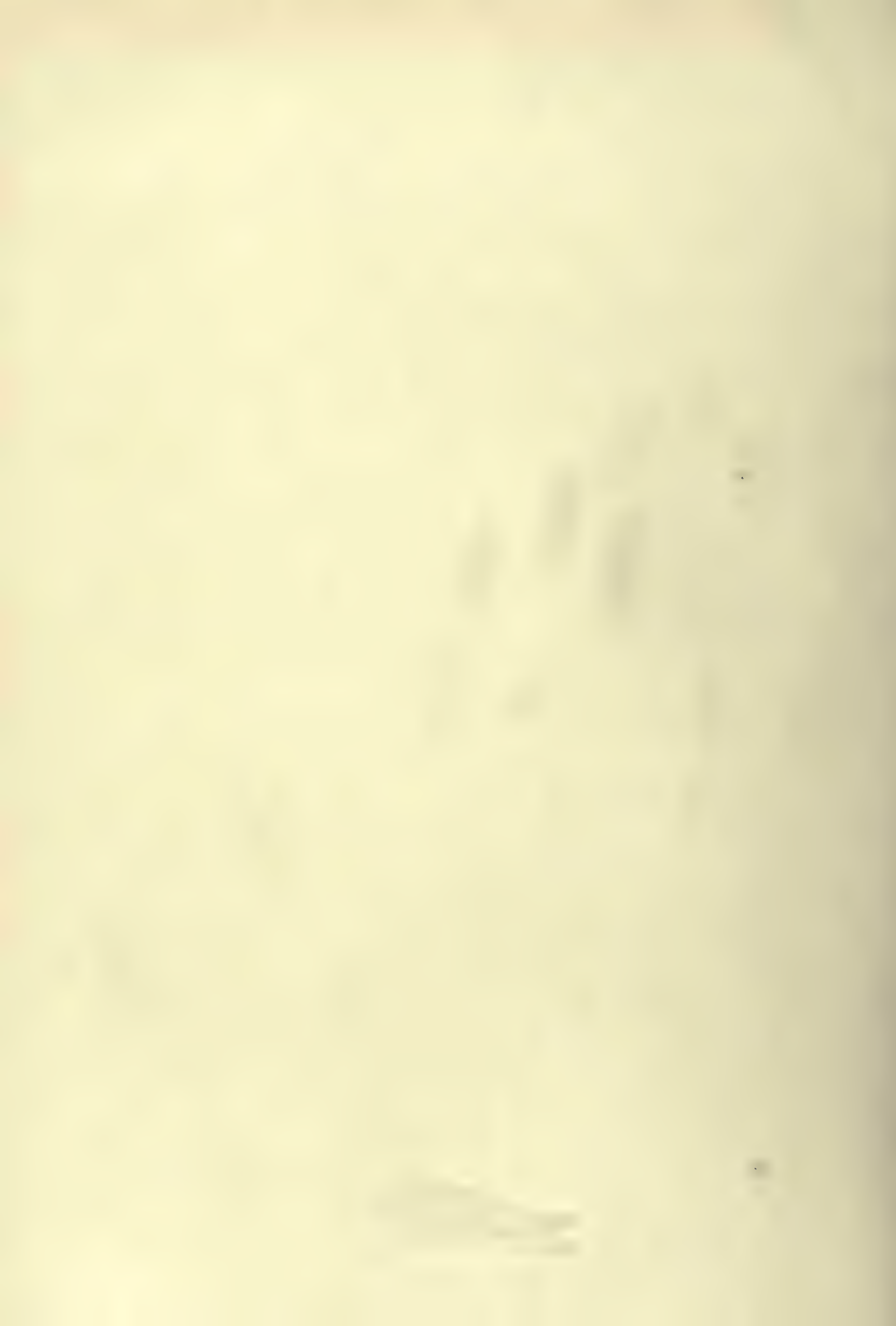
3. The Structure *a* and Adjacent Tower, with *a'*, from the North.



1. The Structure *a*, with *a'*, from the East.



2. The Structure *a''*, from the Southeast.





POMPEII: IX, v, 18: Western Wall of Room. See pp. 38-40.

A. MAU, in *Bull. d. Inst.*, 1880, 84: sopra una base cubica — o per dir meglio sopra un quadrato ornamentato — è rappresentato un Satiro nudo all'infuori d'una veste a guisa di sciallo, che porta sulla spalla sin. un fanciullo (Bacco) tenendone la mano d. alzata colla propria mano d., mentre colla sin. lo sorregge, come pare, alla spalla o al braccio sin.





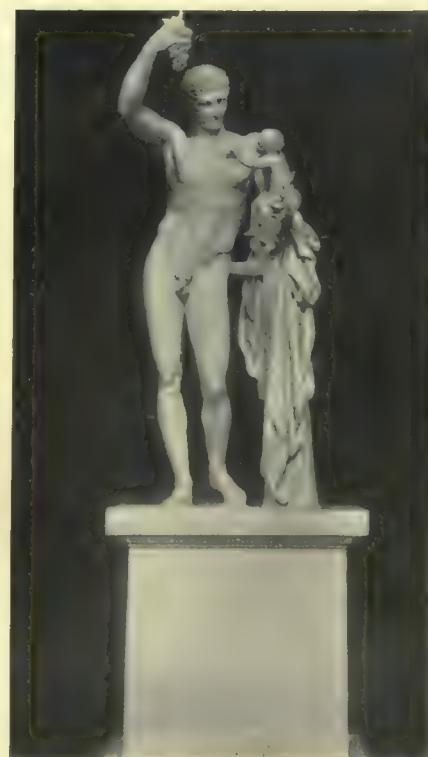
1. Panels in Upper Register.



2. Figure in Central Panel.
Drawing by H. D. Mirick.

A. SOGLIANO, in *Not. d. Scav.*, 1878, 265 :
*Nella riquadratura centrale, si vede ritto sopra
un pilastro un Satiro, che porta Bacco fanciullo
sulla spalla sin.*

Id., *Le Pitture Murali Campane*, Naples,
1879, no. 153: *Vi si vede ritto sopra un pilastro
un Satiro (a. 0,41), che coronato di pino e for-
nito di nebride porta il fanciullo Dioniso sulla
spalla sin., sorreggendolo con la mano corrispon-
dente, mentre con la dr. elevata al di sopra del
capo tiene un grappolo di uva, a cui il bambino
stende la mano dr. — Lucido di Discanno.* (This
latter is untraceable, and the reference is possi-
bly erroneous).



3. (For Comparison):
Hermes at Olympia, Restored Cast.
Photograph, courtesy of F. Lembo.

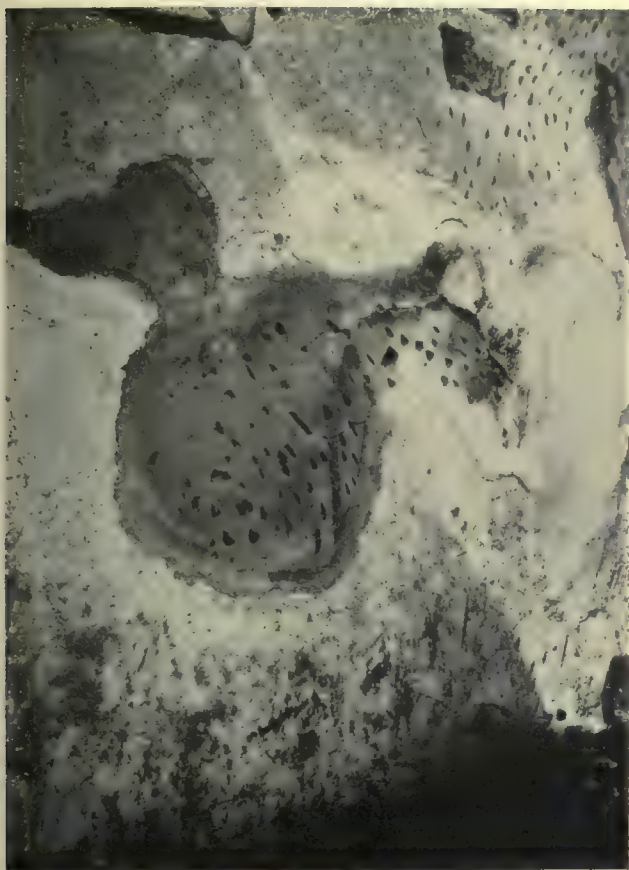




Fragments of Stuccoed Walls from the *Casa di Menandro*. — Fig. 1 shows the Change due to Natural Causes.
 Figures 2–5 show the Specimens exposed to the Experiment of Fire described on Page 50.
 (One Half Actual Size).

POMPEII.





1. VI, i, 7, *Casa delle Vestali*. On North Wall of Room.
See p. 33.



2. South Side of the Same Room, looking toward Southeast Corner.
See p. 33.



3. VII, xv, 4-5: Western Part of Street-Front. See p. 43.

THE SO-CALLED FIRST TRIUMVIRATE.

HENRY A. SANDERS.

THE First Triumvirate » is so imposing a term in the current Roman histories of the first century B. C., that one seldom raises the question of its origin and still less of its applicability. It is a convenient expression which is assumed to designate in a general way the union of three men to control the government. But it is well known that *duumviri*, *triumviri*, *decemviri*, etc. were groups of men duly appointed or elected to perform definite offices connected with the state. The so-called First Triumvirate is comparable with these neither in origin nor in function. It is apparent that the Romans of the time could not have so designated this political union, even if they had known about it, which is from the nature of the union unlikely.

If nothing else aroused our suspicions regarding the term, the adjective « First » must inevitably do so. This implies a second triumvirate as already known. Yet when we turn to the so-called Second Triumvirate we find regular magistrates, *triumviri rei publicae constituendae*, placed in power by a *lex Titia* (APPIAN, *Bell. Civ.*, iv, 7). This exceptional magistracy was to continue for five years according to the law, and it is never by the contemporaries denoted as the Second Triumvirate, though its renewal for a second five years was so designated by Augustus on coins and inscriptions ; cf. MOMMSEN, *Römisches Staatsrecht*, ii, 1, p. 718, n. 6. Also the later historians, as PLUTARCH, *Antony*, 21 (ἡ τῶν τριῶν ἀρχή), Suetonius, *Augustus*, 27 (*triumviratum rei publicae constituendae*), refer to the rule of Lepidus, Antony, and Octavian as a triumvirate, but never as the Second Triumvirate. It might be interesting to determine to whom is due the honor, or dishonor, of inventing the parallel designations of First and Second Triumvirate, often condemned by more careful writers, but such an investigation is not a part of the present study.

By the ancients the so-called First Triumvirate was called indifferently *societas* and *conspiratio*. VARRO in a Menippean Satire called it *Tricaranus*, « the Three-headed, » cf. APPIAN, *Bell. Civ.*, ii, 9. He probably borrowed the term from a Greek writer, who applied it to a secret union of three states ; cf. LUCIAN, *Pseudol.*, 29, who attributes a work

under this title to THEOPOMPUS. For the present purpose it is enough to record that the term First Triumvirate is inaccurate and was not known to the Romans.

Leaving aside then further questions regarding designations let us consider in the first place the character and date of the political union called the First Triumvirate. Regarding these questions we find that five different views are or have been held. The first view is that the union was brought about by a non-secret agreement of unknown date, but made for the purpose of electing Caesar to the consulate and conducting the government. It thus assumes that the agreement was entered into before the consular election of 60 B. C. This is the view most commonly found in the school histories and was also adopted by MOMMSEN, *History of Rome, trans. by Dickson*, 1895, iv, p. 505¹; MERIVALE, *History of Rome*, p. 295; *The Roman Triumvirates*, pp. 70 f.; MYERS, *Rome, its Rise and Fall*, p. 285; MOREY, *History of Rome*, p. 188; OMAN, *Seven Roman Statesmen*, p. 309; FROUDE, *Caesar, a Sketch*, p. 183; and FORSYTH, *Life of Cicero*, p. 208. From this last reference we may quote a couple of sentences as typical: « He (Caesar) labored to form that famous triple alliance which is known in history by the name of the First Triumvirate. » It was apparently no secret, for « a new motive power was applied by the coalition. » This refers to Caesar's election. « No one saw this more clearly than Cicero. »

It would be easy to add to the number of those who have held this view. It was for a long time the popular one. Among the ancients its chief authority is PLUTARCH, where it is found with slightly varied wording in the following passages: *Caesar*, 13, 2; *Pompey*, 47, 1; *Crassus*, 14; *Cato*, 31 (without mention of Crassus).

The second view makes the union a regular agreement, apparently non-secret, but consummated after Caesar's election to the consulate. The ancient authority is VELLEIUS PATERCULUS, ii, 44, 1: *hoc igitur consule inter eum et Cn. Pompeium et M. Crassum inita potentiae societas, quae urbi orbique terrarum nec minus diverso cuique tempore ipsis exitiabilis fuit*. From the context it seems that Velleius meant « consul elect » rather than « consul », but in either case he supposes the agreement to have followed the election. STRACHAN-DAVIDSON, *Cicero*, p. 203, seems to adopt this view, and it can be found elsewhere, as in LONG, *Decline of the Roman Republic*, iii, p. 402: « If Cicero was himself deceived for a short time, the delusion did not last long ».

The third view is that it was a secret union made before Caesar's election as consul. As an ancient authority for this view we cite LIVY, *Per.* 103: *eoque consulatus candidato et captante rem publicam invadere conspiratio inter tres civitatis principes facta est, Cn. Pompeium, M. Crassum, C. Caesarem*. Here secrecy is plainly implied by the word *conspiratio*. Another source is APPIAN, *Bell. Civ.*, ii, 9: ἀγανακτῶν οὖν ὁ Πομπήμιος προσεταιρίζεται Καίσαρα, συμπράξειν ἐς τὴν ὑπατείαν ἐπομόσας· ὁ δ' εὐθὺς αὐτῷ Κράσσον διήλλασσε.

¹ Note that Mommsen did not call it the First Triumvirate but the Second Coalition, contrasting it with the

union which elected Pompey and Crassus as consuls for 70 B. C.

Ἐφορωμένη δ' αὐτοῖς ἡ βουλή Λεύκιον Βόβλον ἐς ἐναντίωσιν τοῦ Καίσαρος ἐχειροτόνησεν. The fact that the senate suspected them suggests that the whole agreement was kept a secret. Among recent scholars SIHLER, *M. Tullius Cicero of Arpinum*, p. 188, has expressed this view well: « The election (of Caesar) was deeply bound up with the personal coalition of the three major politicians ». « Cicero did not at first become aware of the new era ». « The three kept their pact concealed as long as possible ». Yet on p. 189, discussing the call of Balbus on Cicero (*ad Att.*, ii, 3, 3), he says: « The union of the three was no doubt fully accomplished, when Balbus called ». Therefore he understood that Balbus was not telling the whole truth, but it may be questioned whether he was right in assigning knowledge of this fact to Cicero; yet in the next sentence he says: « This Cicero knew and realized clearly ».

Another writer to advocate this view is HEITLAND, *The Roman Republic*, iii, p. 123: « He adroitly made up the old quarrel of Pompey and Crassus and induced them to enter into a coalition, secret for the present, with the object of using their joint power for the promotion of their several aims. They helped him to the consulship ». Also compare the footnote: « Suetonius, *Jul.*, 19, seems to place it after the election and before Caesar's entry on office. This is surely improbable, so I have followed the mass of the authorities ». For this third view we may compare also LIDDELL, *History of Rome*, p. 654.

The fourth view is that it was a secret union made after the election; thus most clearly PETERSSON, *Cicero, a Biography*, p. 302: « Shortly after the election therefore, acting with an adroitness that can only be imagined, for there is no record, he succeeded in making a private arrangement between Pompey, Crassus and himself, by which they agreed to work together. This was the so-called First Triumvirate ». And on p. 303 he adds: « As it became gradually known », and below: « Caesar asked Cicero to join the coalition ». Peterson evidently thought that the coalition became known before the end of 60 B. C.

Another modern author to hold this general view is DRUMANN, *Geschichte Roms*, iii, p. 192. The sole ancient authority is Suetonius, *Julius*, 19: *qua maxime iniuria* (the assignment of woods and pastures as the provinces of the consuls elect) *instinctus omnibus officiis Gnaeum Pompeium adsectatus est offensum patribus..... Pompeioque Marcum Crassum reconciliavit veterem inimicum ex consulatu..... ac societatem cum utroque iniit, ne quid ageretur in re publica, quod displicisset ulli e tribus*. It is not definitely stated that this was a secret agreement, but the whole form and manner of making it implies that.

The fifth and last view held regarding this league to control the state is that it was a secret union, made before the election but elaborated afterward and soon revealed. This view is expressed most fully and carefully by EDUARD MEYER, *Caesars Monarchie*, p. 59, whose statement may be paraphrased as follows: The union of Caesar and Pompey naturally brought in Caesar's protector Crassus. The three did their utmost to keep their conspiracy a secret, so that it is impossible to determine the date of the agreement. It is

certain that Caesar had their assistance in gaining the consulate, but the complete agreement concerning the entire rule may have come some months later. See further pp. 60-61 : In December, 60 B. C., *i. e.* before his consulate, but after the election, he tried through Balbus to draw Cicero to his side. Cicero did not yield, though it is clear how carefully the Triumvirate was concealed. On p. 72 he notes another unsuccessful attempt to win over Cicero, but thereafter seems to assume that the coalition was well known.

This view has been adopted by Gröbe, in PAULY-WISSOWA, x, 1, 196 and in the new edition of DRUMANN, iii², p. 178, footnote. The ancient authority is DIO, xxxvii, 54, 3: οὕτω τοὺς τε ἄλλους καὶ τὸν Πομπήμιον τὸν τε Κράσσον ἐξεθεράπευσεν, ὥστε δι' ἑχθρας ἀλλήλοις ἔτι καὶ τότε αὐτοὺς ὄντας καὶ τὰς ἐταιρείας ἔχοντας, καὶ πρὸς πάνθ' ὅσα ὁ ἕτερος τὸν ἕτερον ἐθέλοντα αἰσθοίτο ἀντιστασιάζοντας, προσποιήσασθαι, καὶ ὑπὸ πάντων αὐτῶν ὁμοθυμαδὸν ἀποδειχθῆναι. . . . 55, 1: Καὶ οὐδὲ τοῦτ' αὐτῷ ἀπέχρησεν, ἀλλὰ καὶ αὐτοὺς ἐκείνους συνήλλαξεν, οὐχ ὅτι συνενεχθῆναι σφας ἤθελεν, ἀλλ' ὅτι δυνατωτάτους τε ἑώρα ὄντας.

This view would gain much strength, if we could feel sure that Dio derived it from Livy, but to such a conjecture LIVY, *Per.*, 103, quoted above, is opposed. That the version of the lost epitome of Livy was similar, is rendered more certain by the agreement of FLORUS, ii, 13, 10 ff.: *tunc Crassus genere divitiis dignitate florebat, ut vellet tamen auctioris opes; C. Caesar eloquentia et spiritu, ecce iam et consulatu adlevabatur; Pompeius tamen inter utrumque eminebat. sic igitur Caesare dignitatem comparare, Crasso augere, Pompeio retinere cupientibus omnibusque pariter potentiae cupidis de invadenda re publica facile convenit.* We can not of course assume from this general agreement of the two epitomators that the original Livy had this view, for it is too easy to consider it an abridgement of the ampler statement in Dio; but whatever evidence on the subject is given by the epitomators of Livy must be considered as opposed to reckoning Livy the source of Dio for this passage.

We must, I think, admit that the question of the date and character of the so-called First Triumvirate is not as easily derived from the original sources as has been sometimes supposed. It was certainly a personal agreement for political ends, comparable with political deals in our own country. As such it would have gained enormously in power, if aided by secrecy. Such secrecy may therefore be assumed, and we may add that secrecy would have been preserved as long as possible. In fact the agreement might still have been denied after suspicions had almost reached the point of certainty. The great meeting at Luca in 56 B. C., when the agreements were renewed, was however a point after which even the dullest Roman must have recognized who ruled the state.

Because of the conflict in the authorities the actual date of the coalition can not be known, yet granted that it was a secret agreement, it then becomes easier to assign it to the date when it would have been most needed, that is, before the election of Caesar as consul. Against the solid opposition of the senate the election of Caesar was most difficult without the aid of either the military prestige of Pompey or the money of Crassus.

Furthermore to have associated himself with either would have brought the more dangerous opposition of the other, as DIO, xxxvii, 55, has well pointed out. To make his election certain Caesar had to reconcile these bitter opponents and make them join forces with him. This political necessity must have been as clear to him then as to us now. We may assume that the coalition preceded the election, the view indeed that is favored by the majority of ancient authorities.

The refinement found in Dio may, I think, be disregarded as immaterial. In a secret political coalition it was inevitable that differences of aims would continuously arise, and that such differences would have to be ironed out by mutual concessions. The meeting at Luca in 56 B. C. was such an occasion known to history. There not a new agreement was made but the old one was carried on by individual concessions and by a larger division of spoils. Similar negotiations on a smaller scale may often have been carried on through intermediaries. The important thing was the first agreement, and that must have carried sufficient promises to Pompey and Crassus so as to make the election of Caesar a desirable thing for them.

There is however another part of this investigation which can not be decided on *a priori* grounds, and on which we have a certain amount of evidence; that is the question, how long this political coalition remained a secret. Certainly it would have been known to Cicero or to Atticus among the first, and for that reason even the faintest allusions in Cicero's letters are regularly interpreted as veiled references to the "triumvirs". As there is a goodly body of letters belonging to the years in question, it is worth while to investigate them with care, so as to differentiate between certain and merely possible allusions to the coalition of Caesar, Pompey and Crassus. The fact that we now know that they were the power behind most political moves from the summer of 60 B. C. until the death of Crassus, is no sign that Cicero knew it. We have conceded that the coalition was a secret agreement and that the secret would be kept as long as possible. Therefore we must interpret every statement in the letters on the basis of evidence contained in the letters themselves or on that of other information available at the time.

The passage most quoted from Cicero's letters is *ad Att.*, ii, 3, 3: *Nam fuit apud me Cornelius, hunc dico Balbum, Caesaris familiarem. Is adfirmabat illum omnibus in rebus meo et Pompei consilio usurum daturumque operam, ut cum Pompeio Crassum coniungeret.* We of course know that the coalition of the three had been formed months before the date of this letter, but did Cicero? He dismisses the statements of Balbus as a pipe-dream of Caesar, to use a modern phrase. Balbus comes as the friend of Caesar. His object is to win support for the agrarian law. There is, indeed, a hint that Caesar is already making the law satisfactory to Pompey, but why couple Pompey's name with Cicero's in the promise to follow their advice, if there was not the pretence, that Cicero stood nearer to Pompey than did Caesar? Certainly Cicero's help is desired, and this is the question

that he is deliberating as he writes this letter. In the passage just preceding he has said that he must resist the proposed law strongly, or go out of town, or else he must assist the measure. He is told that Caesar expects him to do the last. Why this expectation on the part of Caesar? Certainly it is not a hint at the triumviral power, for the whole context shows that Cicero has no inkling of this. Probably it is merely anticipatory of the next sentence, in which it is promised that Caesar will follow Cicero's opinion as well as Pompey's in everything. Cicero naturally recalled how easily his eloquence had defeated the agrarian bill of Rullus four years before, so he might properly consider that his aid or his silence was needed now. He must appreciate the power that will come to Caesar and Pompey, if the law is passed, but in my opinion the important fact is that he still thinks it possible to defeat the agrarian bill. This means that he has no knowledge of the forces combined to effect its passage. Balbus deceives him while pretending to take him into Caesar's confidence. This is made certain by the statement that Caesar will try to reconcile Pompey and Crassus. We know that the reconciliation had taken place before this date, but this tells us that Cicero did not know it.

On the other hand Cicero must have seen that the bill was being framed to satisfy Pompey. The two might be able to carry the measure and thereafter control the state. It is a rule by two that Cicero fears at this time. Against this he can urge his own friendliness and influence with Pompey. If a third member of the league is considered in this letter, it is Clodius; compare the following sentence: *hic sunt haec, coniunctio mihi summa cum Pompeio, si placet, etiam cum Caesare, reditus in gratiam cum inimicis (=Clodius), pax cum multitudine, senectutis otium.*

In spite of these influences Cicero nevertheless shows his intention of opposing the agrarian bill. This in my opinion is the final proof that he did not know the strength and intentions of the coalition he would have to oppose.

This letter must have been written near the end of December of 60 B. C., for Cicero adds at the end of this discussion: *sed haec ambulationibus Compitaliciis reservemus.* Also he introduces the discussion of section 3 with the words, *venio nunc ad mensem Ianuarium.* As the *Compitalia* fell on or about January first, the date of this letter is quite closely determined.

Caesar had returned from his province, Spain, soon after the first of June, for Cicero in his reply to the letter of Atticus received on that day (*Kalendis Iuniis eunti mihi Antium... venit obviam tuus puer*) says (ii, 1, 9) *cum Caesarem videro, qui aderit biduo.* At this time the consular election was held on or soon after July tenth, unless postponed, cf. MOMMSEN, *Staatsrecht*, i, p. 584. Caesar had to abandon his triumph in order to enter the city and give in his name as a candidate; see DIO, xxxvii, 54; PLUTARCH, *Caesar*, 13; APPIAN, *Bell. Civ.*, ii, 8. This must be done a *trinum nundinum* before the election, generally interpreted as seventeen days but explained as twenty-four days by MOMMSEN, *Staatsrecht*,

i, p. 502, iii, p. 376, where a further reference is given to his *Römische Chronologie*, p. 243; add also p. 230. We are thus sure that Caesar had to reach Rome before June twenty-third and, if we follow Mommsen, before June sixteenth. In fact his return must have occurred several days before the final date of registration, for while making preparations for the triumph, he had petitioned the senate to excuse him from the registration in person, a request which Cato finally talked to death (APPIAN, *Bell. Civ.*, ii, 8).

For the period from June to the end of December, 60 B.C., there are but two other letters of CICERO, *ad Att.*, ii, 2 and *ad Quint. Frat.*, i, 1, in neither of which is there any definite reference to current political events.

From April, 59 B. C., there is a group of twelve letters to Atticus, ii, 4-15. They are filled with political allusions. Here occurs what is generally considered the plainest allusion to the triumvirate, *ad Att.*, ii, 9, 2: *etenim, si fuit invidiosa senatus potentia, cum ea non ad populum, sed ad tres homines immoderatos redacta sit, quid iam censes fore?* This is the only reference to three men as leaders of the party opposed to Cicero, except *fratres tres* in the letter to Atticus (iv, 2, 1) which means Appius and Publius Clodius and Metellus, husband of Clodia. Elsewhere we find only the vague terms, *reges*, *ad Att.*, ii, 8, 1; *ad Quint. Frat.*, i, 2, 16; *dynastae*, *ad Att.*, ii, 9, 1; *illi*, *ad Att.*, ii, 18, 1; ii, 21, 1; ii, 22, 5; *populares isti*, *ad Att.*, ii, 19, 2; *isti*, *ad Att.*, ii, 9, 1; iii, 10, 1; iv, 10, 1.

All of these terms except the first one are indefinite and could as well refer to a combination of two men or of four men as of the traditionally accepted three. In fact *hi dynastae* in this very letter (ii, 9, 1) seems from the context to refer to but two. Cicero is asking Atticus for information about Clodius and his planned attack. He knows that Caesar proposed Clodius' adoption by a plebeian (*ad Att.*, ii, 12, 2) and that Pompey assisted at the auspices (*ad Att.*, ii, 12, 1). Furthermore there is a plain reference to Pompey in section 1: *si vero, quae de me pacta sunt, ea non servantur*, for Pompey had exacted a promise from Clodius that he would do nothing against Cicero (*ad Att.*, ii, 22, 2). The reference is made still clearer by the following words, *hic noster Hierosolymarius*, which must mean Pompey. Also in section 2 just after the expression *tres homines immoderatos*, he adds: « Let them make anyone they like consuls and tribunes and let them cloak the wen of Vatinius with a purple priestly robe ». Vatinius was known as Caesar's underling. Thus the *dynastae*, on whose favor Clodius relies, are shown by the context to be Pompey and Caesar. The whole letter is a record of the apprehensions of Cicero. The three persons referred to as feared are Clodius, Caesar and Pompey. Doubtless Cicero would have ranked them in the inverse order as regards their power, but this is the order of their hatred or envy of him. There is nothing in the letter that suggests Crassus.

Cicero knew that Crassus had saved Clodius at the time of his trial (*ad Att.*, i, 16, 5) and so might reasonably expect him to have influence with Clodius later. Yet at this time

he quite surely felt that Crassus was friendly to himself or harmless ; compare *ad Att.*, i, 14, 3, *Crassus ornatissime de meo consulatu locutus est*, and i, 18, 6, *Crassus verbum nullum contra gratiam*.

The failure to identify these *tres homines immoderatos* of *ad Att.*, ii, 9, 2, with the so-called triumvirs ruins the same attempted identification of any general terms in the whole group of April letters. There is but one other case, *ad Att.*, ii, 8, 1, *reges odisse superbos*. This is a quotation from a satire of Lucilius, but shows the attitude of the young Curio, a supporter of the senate, towards the consul Caesar and his party. As we have interpreted *dynastae* of ii, 9, 1, as Caesar and Pompey, so we should probably interpret *reges* here. There is nothing in the April group of letters that can be referred to a triumvirate. Cicero knows that Caesar's party is in control of the government and that the senatorial party is frightened. He has decided to stay away from the city so as to avoid taking sides openly. This was one of the three choices that he had had under consideration already the previous December (*ad Att.*, ii, 3, 2).

Before continuing this discussion of the general allusions to the party in power beyond April, 59 B. C., it is best to consider all references to Crassus down to the time of his death, so as to determine, if possible, what his attitude was towards Pompey as Cicero saw it. We have above discussed four instances, *ad Att.*, i, 14, 3 ; i, 16, 5 ; i, 18, 6 ; ii, 3, 3. The phrase, *ad Att.*, ii, 4, 2, is regularly interpreted "to envy Crassus his coalition with Caesar and Pompey", but the allusion is forced and, as I see it, entirely dependent on our modern knowledge of the triumvirate. The letter starts with money matters ; there follows : "you say that Clodius is going to Tigranes". "But I do not envy him". "It will be a better time for a free traveling pass, when brother Quintus is settled in peace.... and when I know the plans of Clodius. Meantime I shall settle down to enjoy the Muses..... ; for it will never enter my head to envy Crassus nor to repent of not having turned traitor to myself". Cicero was always somewhat in money difficulties. Both Caesar and Pompey had offered him positions as legate as the price of his support. Either appointment would have brought safety¹ and might have been lucrative. Yet he refused. He neither regrets the money (that is, envies Crassus) nor fears for his safety. The allusion to Crassus is then the same as in *ad Att.*, i, 4, 3, *quod si adsequor, supero Crassum divitiis, atque omnium vicos et prata contemno*. To follow the current view is to make the two alternatives, either to envy Crassus or to repent not turning traitor to my party, mean the same thing. It is of course possible so to interpret the sentence, but it seems more natural to make the alternatives real.

The question (*ad Att.*, ii, 5, 2), whether Pompey and Crassus are running for the consulship, refers to a popular rumor that was apparently not believed.

¹ There were also other offers from Caesar : cf. CICERO, *de Prov. Cons.*, 41: *me ille [Caesar] ut quinquevi-*

raturum acciperem rogavit ; me in tribus sibi coniunctissimis consularibus esse voluit ; mihi legationem..... detulit.

The next citation is more puzzling to the editors. We read, *ad Att.*, ii, 13, 2: *quanto in odio noster amicus Magnus! cuius cognomen una cum Crassi Divitis cognomine consenescit.* This TYRRELL and PURSER (3d. ed.) interpret as follows: "The connection with Magnus requires us to take this as referring to the triumvir, who certainly was called Crassus the Rich (*de Fin.*, iii, 75). Pompey used to be 'Pompey the Great'; now he is no longer 'the Great'; Crassus used to be 'Crassus the Rich'; his influence is now fading, and he is becoming but plain Crassus. If Cicero referred to the Crassus Dives, who became bankrupt, he would have used a stronger word than *consenescit*, something like *evanuit*, *deperit*, or the like". Other scholars, including GELZER, in PAULY-WISSOWA, xiii, 1, 295, accept this interpretation, though MÜNZER correctly calls attention to the fact that it would be the only case of this cognomen being applied to M. Licinius Crassus.¹ Tyrrell and Purser's reference to CICERO, *de Fin.*, iii, 75, is not in point. There Cicero says that the philosopher is more correctly called king than Tarquinius, dictator than Sulla, *dives* (*i. e.* rich) than Crassus. There is no question of a cognomen in any one of the three cases. The only contemporary of Cicero known to bear the double cognomen of *Crassus Dives* was the P. Licinius Crassus Dives mentioned by CICERO, *ad Att.*, ii, 24, 4; see PAULY-WISSOWA, xiii, 1, 334, no. 71. He was *iudex quaestionis* or *quaesitor* in charge of the court *de vi* in 59 B. C. This judgeship of a criminal court regularly fell to an ex-aedile, when not taken by a praetor. Crassus Dives was doubtless aedile in 60 B. C. In conformity with this we find him mentioned among the praetors of 57 B. C. by Cicero, *orat. post red. in senatu*, 22-23. One does not need to be reminded of the great sums spent by aediles in the race for popularity for the purpose of an eventual election as praetor. Crassus Dives succeeded at this time, when extravagance and bribery were most outrageous. We have a right to infer that his wealth had been decidedly diminished, even though he had not become bankrupt. This is exactly what Cicero says in the passage, *ad Att.*, ii, 13, 2: Pompeius Magnus is ceasing to be great and Crassus Dives to be rich. To drag in Marcus Crassus, the proverbial rich man of Rome, who never lost his wealth but remained a proverb to later times, is entirely out of place.

The next reference is particularly illuminating, *ad Att.*, ii, 21, 4: *O spectaculum uni Crasso iucundum, ceteris non item!* Cicero is speaking of Pompey and particularly of the figure he cut when addressing the people against the edicts of Bibulus. It so affected Cicero that he says: *non tenui lacrimas.* No one but the bitterest enemy could have enjoyed the degradation of Pompey, and such was Crassus. This passage alone should have warned scholars against assuming knowledge of the Triumvirate by Cicero at this time. The labored attempts of editors to explain it are illogical or they resort to emendation. Crassus was still an enemy to Pompey when this letter was written, or rather Cicero thought that he was. Therefore the latter knew nothing of the so-called Triumvirate at the time.

¹ MÜNZER, in PAULY-WISSOWA, xiii, 1, 246, denies that *Dives* was ever used as a real cognomen by the Triumvir Crassus.

The next passage containing a reference to Crassus is *ad Att.*, ii, 22, 5 : *puto Pompeium Crasso urgente, si tu aderis, qui per Βοῶπιυ ex ipso intellegere possis qua fide ab illis agatur, nos aut sine molestia aut certe sine errore futuros.* The editors have trouble with this passage, which they seek to cure by emendation or by far-fetched interpretation. I can do no better. The order of words in *Pompeium Crasso urgente* is bad, if *Pompeium* depends on *urgente*. One does not see what Crassus has to do in a letter and a matter mostly devoted to Pompey's ability to restrain Clodius, or to his good faith in promising to restrain him. And finally *ipso* must refer to Clodius, as TYRRELL and PURSER rightly explain, yet such an interpretation is most difficult, when he is not mentioned in this sentence nor in the preceding one. One might correct the form, except for the order of the words, by substituting « *Clodio* » for « *Crasso* », yet after all we do not know that Clodius was arousing Pompey to any action, but rather that Pompey was trying or pretending to try to restrain Clodius. *Urgente* will bear the meaning « repress », but we must emend the passage to read *Pompeio Clodium urgente* to make such a meaning in point. This involves too great a change from the reading of the manuscripts, which could be only partly excused by the unusual meaning of *urgente*. I must condemn these attempts along with others that have been made. It may well be that there is a *lacuna* after *Pompeium* and that Clodius was really named before *Crasso urgente*. That would make *ipso* intelligible, but it would not help us towards the meaning of *Crasso urgente*. Of two things however we may be sure : letters 21 and 22 were nearly contemporary and in letter 21 Crassus is represented as most hostile to Pompey. Therefore in letter 22 *Pompeium* can not be made dependent on *Crasso urgente*. For my purpose nothing more needs to be established.

Another reference is *ad Quint. Frat.*, i, 3, 7, where Cicero advises Quintus to apply to Crassus for aid, if he is prosecuted. Therefore Crassus is considered a friend. Yet this mood soon changes, for *ad Fam.*, xiv, 2, 2, shows that he thinks Pompey is favorable to his recall but he fears Crassus. The two are still opposed.

The next reference to Crassus is also found in the letters written during the exile, *ad Att.*, iii, 23, 5. This merely states that Atticus wrote *de Crasso, de Pompeio, de ceteris* in setting forth the matters that hindered the recall. The two are mentioned as leading men in the state and there is no implication that they were secretly associated in running the government.

On January 15, 56 B. C. (*ad Fam.*, i, 1, 3) he implies that Crassus is a known opponent of Pompey, who on Feb. 12 (*ad Quint. Frat.*, ii, 3, 3-4) is alleged to have attacked and criticised Crassus.

Far different is the next passage, *ad Att.*, iv, 11, 1, written in 55 B. C. during the consulship of Pompey and Crassus. Now the two men are friendly and Pompey is expecting Crassus at his house in the country. The only other passage mentioning Crassus (*ad Att.*, iv, 13, 2) contains nothing of importance.

gible without emendation. Because of *fide* we may suspect that Pompey is included among those called « *illi* », for he is generally *suspecta fide* to Cicero, but we can hardly go farther than that on the basis of what is contained in this letter.

There are three passages where *isti* is supposed to be similarly used, *ad Att.*, iii, 10, 1; iv, 10, 1; ii, 9, 1. The first plainly refers to friends of Atticus. The second is used in contrasting Cicero's enjoyment of literature with political activity and has been referred to Pompey and Crassus, which may well be right, for the letter falls in the year 55 B. C. The usual second person implication of *isti* may even be preserved, for Atticus was notoriously successful in keeping friendly with the leaders of all parties. This identification is not however certain, since *cum eo ambulandum* just below apparently refers to Pompey; compare the next letter chronologically (*ad Att.*, iv, 9), where Cicero states that Pompey has been with him. *Istorum*, *ad Att.*, ii, 9, 1, means « Caesar's party », as shown by what follows, and by *dynastae*, which precedes.

Another expression commonly identified as the « triumvirs » is *isti populares*, *ad Att.*, ii, 19, 2: « Those populistic (opponents of Bibulus) have taught modest men to hiss ». He then goes on to characterize the opponents, first Pompey and then Caesar. After a reference to the younger Curio, defender of the senate, he describes the action of Clodius. Then he again takes up Pompey and again Caesar. If any others besides Pompey and Caesar are meant by *isti populares* in this letter, it must be Clodius and his followers. There is no mention of Crassus, though it is stated elsewhere that he spoke once for the agrarian law; compare DIO, xxxviii, 5, 5: « These words of Pompey were approved also by Crassus », and others agreed, since these « men were not only accounted good citizens in general, but hostile to Caesar, for their reconciliation was not yet manifest etc. »; PLUTARCH, *Caesar*, 14; (not *Pompey*, 47); APPIAN, *Bell. Civ.*, ii, 10. Cicero nowhere refers to Crassus' support of the agrarian law, though he mentions Pompey's assistance, *ad Att.*, viii, 3, 3. Therefore the union of Pompey and Crassus in supporting Caesar's legislation made no impression on the Romans at the time. Doubtless Caesar had several leading citizens speak. Pompey's speech was famous because he threatened to use force. The participation of Crassus was rescued from oblivion when the existence of the coalition became known later.

Not only was Crassus' interest in the partnership not known at the time, but he received no adequate share of the spoils. The ends gained by Caesar and Pompey were well known, but scholars either assign no gain to Crassus or suggest some tax concession. The latter suggestion seems right. In 61 B. C. Crassus had fathered the bill to relieve the tax farmers of their unprofitable contract for the taxes of Asia (*ad Att.*, i, 17, 9). The proposal failed, but in 59 Caesar included in his legislation a law relieving the tax farmers of Asia from one third of the contracted price. This has been accounted Caesar's bid for popularity with the *equites*, and it certainly worked out that way; but to call it only that is to ignore the previous interest of Crassus in the matter. Naturally as a senator he could not

openly engage in farming the taxes, but it would have been easy to have his money engaged as a silent partner with one or more knights. If it was self-interest that made him father the senatorial bill in 61 B. C., he would have been equally eager to save his money in 59 B. C. Later however he must have been restless when he saw the great profits obtained by Caesar and Pompey. At the renewal of the coalition in 56 B. C. he demanded and obtained his due share of the spoils.

In the above I have tried to make clear that Cicero recognized that there was a coalition to control the government during and after the consulship of Caesar, but that he considered Caesar and Pompey the only important members. A study of all the references to these two leaders in the contemporary literature supports this view. Nowhere are they shown in conflict; Pompey supports Caesar's legislation; his marriage with Julia is referred to as *adfinitatis coniunctio* (*ad Att.*, ii, 17, 1), where to be sure his plotting for a dictatorship and his lavish bribery are mentioned.

Another characteristic passage is *ad Att.*, ii, 19, 3: *Diphilus tragoedus in nostrum Pompeium petulanter invectus est; Caesar cum venisset mortuo plauso, Curio filius est insecutus. Huic ita plausum est, ut salva re publica Pompeio plaudi solebat. Tulit Caesar graviter. Litterae Capuam ad Pompeium volare dicebantur.* It is clear that Caesar relied on the mailed hand of Pompey to restrain the mob, when it turned against him. Compare also *ad Att.*, iii, 18, cited below.

The gradually changing attitude of Cicero towards these two leaders also illustrates his ignorance of the full form and intent of the coalition. At the start he distrusts and fears Caesar, but he admires Pompey and believes him friendly, though probably envious. His real change towards Caesar comes after his return from exile and during the legateship of brother Quintus with Caesar in Gaul. Pompey he begins to distrust already in 59 B. C., though his admiration for his achievements continues high. This is well illustrated in the oration *pro Flacco*, 14, where Pompey is accused of having instigated the prosecution of Flaccus by D. Laelius. In sections 29, 30, and 67 there is high praise of Pompey's deeds. In section 94 the punishment of the Catilinarian conspirators is mentioned, and then the condemnation of C. Antonius to avenge it. In sections 95 ff. there are other references to the same matter; vengeance for Lentulus is sought from Flaccus; now the attack is being prepared against Cicero, but he is ready; twice in this year he has successfully defended A. Thermus, attacked for the same reason by the party of the plebs. There is much more to the same effect, but of most interest is the manner in which he passes from Pompey as instigator to Clodius and the plebs as the actual assailants. This distrust of the good faith of Pompey continually increases and at the end is combined with criticism of his military acts and lack of confidence in his ability. The letters *ad Att.*, viii, 3 and following illustrate this phase. Even though Pompey seems to represent the constitution, the decision to follow him and to abandon Caesar and Italy is a hard one for Cicero to make.

But this is somewhat beyond my theme, which I have intended to restrict to the time of the so-called First Triumvirate. With respect to the letters dating from this period I have tried to trace out and interpret all the apposite political allusions. We have not however thus far discussed any of the passages which illustrate Cicero's feelings toward those who caused his exile, or who might bring about his return. The critic may say that Cicero, when in exile, must surely have known the combination of power that caused it. The statements in the letters do not bear out such a view. Not once does he mention Clodius as a mere agent. He knows that Pompey betrayed him, but considers the suggestion of Atticus to look for a break between Pompey and the party of Clodius (*ad Att.*, iii, 8, 3). He still hoped for Pompey's aid up to August fifth, 58 B. C. (*ad Att.*, iii, 13), and later in the month is encouraged by a reported statement about the same leader (*ad Att.*, iii, 15, 1). The hint that Pompey is awaiting Caesar's approval before aiding him is recorded in the letter, *ad Att.*, iii, 18. In the letter, *ad Fam.*, xiv, 2, 2, written on October fifth, he has hope, if there is goodwill on the part of Pompey, but he fears Crassus. On November twenty-fifth (*ad Fam.*, xiv, 1, 2) he thinks Caesar and Pompey favorable to his recall. All these are the varying fears and hopes of a man most unstable in misfortune. Cicero's real feeling about the cause of his exile is, I think, indicated rather by the following passages: *ad Fam.*, xiv, 1, 2: « But if I had followed my own judgement and if the speeches of ignorant or base friends had not had so much influence, I should be living in perfect happiness »; and again, *ad Att.*, iii, 9, 2: where to Atticus' suggestion, « now try to win over Hortensius and such people », he replies, « I beg you, my dear Pomponius, do you not yet understand, whose agency, whose villainy, and whose treachery have ruined me? » There are other such allusions, as *ad Att.*, iii, 8, 4, generally more veiled, which show that Cicero's most abiding thought was that the jealousy and treachery of his senatorial friends and associates had left him unprotected against the attacks of Clodius. Of such a power as the so-called First Triumvirate there is never a thought in the numerous letters from exile.

In conclusion let me once more emphasize that the real subject of this discussion has been Cicero's knowledge or lack of knowledge of the secret coalition of Pompey, Crassus, and Caesar, the existence of which from the consular election of the summer of 60 B. C. on is admitted. Long established views are however hard to change, so I do not hope to have rewritten the political history of the time; but if nothing else is established by this study, it is to be hoped that it will produce at least a certain distrust of interpreting Cicero's Letters on the basis of our present-day knowledge of the history of the time.

SOME INSCRIPTIONS IN ROME.

HENRY A. SANDERS.

(PLATES 14-20).

I.

IN the spring of 1930 Mr. Algernon A. Osborne of the American Embassy in Rome called my attention to a few inscriptions, which he had had brought to his apartment from the garden at No. 10 Via G. B. De Rossi. Later two more inscriptions came to light together with certain facts concerning the place of discovery, so that it seems proper to publish them as a group with a few comments on their origin and significance. Signor Donati, the owner, Ingegnere Campa, the architect of the building, and also the « portiere » assisted with certain details.

Nos. 1, 2, and 3 were found while repairing the foundations of the small old building at the corner of the Via G. B. De Rossi and the Via Alessandro Torlonia. The house had been built on filled ground long ago and when a large crack developed in the outer wall, it was necessary to go to the bottom of the fill in order to find a firm foundation. There at a depth between thirteen and an half and fourteen meters the inscriptions were found together with a single skull. The pit sunk was small but it was plain that nothing was *in situ*. The remains belonged to a destroyed columbarium.

The other four inscriptions were found while digging the foundations of the main house, No. 10 Via G. B. De Rossi. Two of the graves were found still intact. The skeletons even were found fairly complete, covered by large tiles so leaned together as to form a roof over them. Some other things of probable or certain antiquity were found with the above, as a piece of a small column, several small earthenware jars of little or no value, and a Roman lamp bearing on the bottom the stamp of the maker, Q · NVMI · CEL · . This is a known type, *cf. C.I.L.*, xv, 6580, where nineteen lamps with this stamp are listed each with description of the figure or device on the top.

Inscription No. 6 is cut on the back of an architectural fragment, so there may have

been some more elaborate funeral monument here from an earlier period, to which the small pillar also belonged.

All of this latter material was found at a depth of six meters, but as the building stands in filled soil, it was not all excavated to that depth. The different ancient objects were found near the bottom of the trench sunk for the south wall.

It is noteworthy that these two finds of tombstones were located about seventy-five meters apart and at approximately the same distance from the Via G. B. De Rossi. This street is nearly parallel to the modern Via Nomentana, from the middle of which it is nearly two hundred meters distant to the southeast. It is a short street beginning just beyond the Villa Torlonia.

The ancient Porta Nomentana¹ was located about seventy-five meters to the southeast of Porta Pia in the gardens of the British Embassy, and according to ASHBY, in *P.B.S.R.*, iii, 1906, 38-41, the only traces of the pavement of the ancient Via Nomentana were discovered in laying the foundations of the Palazzo delle Ferrovie outside the walls near the Porta Pia and at the Via Pola² near S. Agnese and to the northwest of the modern Via Nomentana. He infers a somewhat winding course of the road between these points on the evidence of tombs discovered particularly at the Villas Torlonia and Mirafiori.

In the *Notizie degli Scavi* from 1906 on there are frequent reports of the discovery of tombs along the modern Via Nomentana, wherever the road was broadened or sewers dug. There is therefore no doubt of the truth of Ashby's assumption that the ancient road approximated the modern one after the two joined a few hundred meters outside the wall. Tombs nearly two hundred meters distant from an ancient road can hardly be considered adjacent to that road. Furthermore these sepulchral remains were found in two places seventy-five meters apart. Either there was an ancient cemetery of large extent³ in this general area or, as I am more inclined to believe, a cross street to the Via Tiburtina existed at this point. The two graves that were found *in situ* would fix the north side of this street. The extra depth at which the other inscriptions were found suggests that they had been thrown there in filling a ravine.

The scarcity of evidence of this ancient cross-road or cemetery is probably due to the depth at which the ancient surface lies. There was doubtless a good deal of leveling and filling after the ancient road or cemetery was abandoned. The location just beyond the high land of the Villa Torlonia was a natural one for a road. The beginning of another ancient cross-road was found in 1910 at the Viale della Regina near the Via Nomentana, see *Notizie degli Scavi*, 1910, p. 55. Two others nearer the gate are mentioned by ASHBY, *op. cit.*, pp. 39-40.

¹ Cf. I. A. RICHMOND, *The City Wall of Imperial Rome*, Oxford, 1930, pp. 93 f.; LANCIANI, *F.U.R.*, Pls. 3 and 4.

² See *Bull. Com.*, xxx, 1902, 208.

³ ASHBY, in *P.B.S.R.*, iii, 1906, 39, says no extensive cemetery seems to have existed along the Via Nomentana.

Donati, No. 1. A marble slab .307 by .229 m.; letters .025 to .028 m. high; triangular punctuation. It was once fastened on a columbarium with three nails, two of which are in part still in place. Plate 14.

D · M ·
T · FLAVIO
IATROCLI
SYNTYCHE
CONLIBERTO
BENEMEREN
TI

This inscription and the two following, found near it, are all of the Flavian gens and two are probably of freedmen. The forms of the letters seem to me rather of the end of the second century, so I do not associate these names with freedmen of the imperial family at the end of the first century. The name T. Flavius Iatrocles is not found in *C.I.L.*, vi, nor is Iatrocles a cognomen noted by Dessau. Yet it is a common Greek name, Ἰατροκλής, εἶους, cf. PAPE, *Griechische Eigennamen*, and PREISIGKE, *Namenbuch*.

Syntyche is a woman's name recorded in PAPE; cf. also *Cameria Syntyche*, *C.I.L.*, vi, 7772.

Donati 2. A marble slab .300 by .202 m.; letters about .025 m. high except the last line, which is .023 m. high; ivy leaf punctuation after D and M, elsewhere triangular. Plate 14.

D ϕ M ϕ
FLAVIAE · FELICITA
VIX · AN · XIV · TI
TI · CLAUDIVS · PRIMVS
PATER · FILIAE ·
PIENTISSIMAE

This simple inscription, which to judge from the open P is not later than the end of the second century A. D., presents unexpected difficulty. It seems preferable to read it: *D(is) M(anibus). Flaviae Felicitati vix(it) an(nis) XIV Ti. Claudius Primus pater filiae pientissimae.*

The two letters at the end of line 3 might be read II and the age interpreted *an(nis) XIV*, (*mensibus*) II, but I know of no certain example of omission of the abbreviation for *mensibus*. There is little difference between TI and II in this inscription. On the whole however the shapes of the letters conform best with the reading accepted and the only real difficulty is in the placing of the last two letters of *Felicitati* in the line below. This was perhaps made intelligible by the fact that TI was placed at the very end of the line with a little more than the regular spacing before it and also a different shaped punctuation mark, a sort of a circle, was used, instead of the regular triangular dot. Possibly the crowding of the next name in line 4 may be adduced to show that the intention was to make the names coincide with their respective lines. The placing of the TI under the end of *Felicitati* is hardly more strange than the insertion of V in the top of M of *Primus*. There are instances of two or even four letters added under the end of a line at or near the end of an inscription: *C.I.L.*, vi, 9144; 15617. In *C.I.L.*, vi, 31009 (now at the American Academy in Rome, cf. *Mem.*, ix, 1931, p. 127, no. 162), QUE|TVS (a form which occurs elsewhere) was corrected to *Quietus* by the I at the end of line 2.

If one is not inclined to accept this interpretation, it would be preferable to read *Felicila*, for *Feliculae*, or *Feliclae*, and suppose the final letter of the dative dropped. *Felicula* is more common than *Felicitas* as the name of a freedwoman, especially in the Flavian gens. The Claudian gens often has both names.

Donati 3. A marble fragment .12 by .10 m.; letters of the upper lines .025 m. and of the last line .015 m. high. Plate 14.

PI
A · L ·
FLAV
ET · FELIX

This is a part of another columbarium inscription. A hole for the nail is seen in the preserved corner. The diagonal break looks new, so this piece was doubtless broken off by the workmen and the rest of the inscription

was left in the side of the deep pit. The second line suggests *A(uli) l[ibertus]*, and the third and fourth lines, that two *Flavii*, and *Felix*, were the dedicants.

The type of the letters corresponds well with that of No. 2. It is probably to be dated near the end of the second century.

Donati 4. A rather irregular marble slab .37 by .64 m.; the letters except D M vary from .030 down to .025 m. high; punctuation triangular. The hole through the bottom, as in nos. 5 and 6, held a bar which hindered the tombstone from being pulled up and carried off. Plate 14.

D M
CASCAELIA · POL
AVSTE VIX AN
NIS XXX T FLAVI
VS · HESPER · PA —
TER · CASCELLIA —
MATER · FILIAE · PI
ENTISSIMAE · FECER

The last three letters of line 2 must be read either POI or POL. The first seems meaningless, while the second would expand to (*tribu*) *Pol(lia)*. It is the characteristic mark of Roman citizenship to name the tribe. Even in the case of women tribal names sometimes occur.¹ It is rare with all names after the time of Caracalla. The general character of the letters also dates this inscription in the second century. The Emperor Vespasian was of the *Quirina* tribe, so that is the tribe most often found in connection with freedmen of the Flavian gens, but it is not the only tribe mentioned, as the *Palatina* and the *Pomptina* are also joined with the name *Flavius*.

Cascaelia took her name from her mother but to claim citizenship she must have been legitimate and so would have followed the tribe of the father, *T. Flavius Hesper*. A man of this name is mentioned in two known inscriptions. In *C.I.L.*, vi, 32429, e, 4, he is recorded as chosen into a *collegium domus Palatinae*. The list of the *collegium* was started in 98 A. D., cf. frag. a, so the name of T. Flavius Hesper on fragment e was probably added considerably later. *C.I.L.*, vi, 32895 names *T. Flavius Hesper evocatus Augusti* as dedicating the tomb of L. Statilius Secundus. As no date is given for this second inscription there is no apparent reason why these two *Flavii* can not be identified. The *evocatus Augusti* was an ex-soldier (praetorian or urban cohort) and attached to the imperial household in some administrative capacity. Only ex-soldiers who had attained to the rank of a *principalis* were chosen and it was an honorable and lucrative post.

Soldiers of the praetorian guard were recruited from Italy and the provinces up to the time of Septimius Severus. Persons born from illegitimate unions in camp villages were often enrolled as legionary soldiers and given Roman citizenship, being assigned to the Pollian tribe.² There is therefore no difficulty in referring an ex-soldier to the Pollian tribe, whether he had himself been assigned to it upon becoming a soldier or had received it from an ancestor, who had obtained it in like manner.

This is in defence of the still somewhat doubtful reading (*tribu*) *Pol(lia)*. There is no attempt to identify T. Flavius Hesper of this inscription with the one or two named in the above mentioned published inscriptions. This inscription seems to belong nearer the end of the second century A. D.

The name Cascellia is spelled in two ways in the inscription. In the index to volume vi of the *Corpus* the feminine form is always spelled with double l, but the masculine form of the gens name has double l twelve times and the single l four.

Auste is a rare form probably due to foreign or dialectical pronunciation of Auguste; so DIEHL, in *Thesaurus*, citing *C.I.L.*, viii, 9734, for a Christian inscription of 485 A. D. from Mauretania; add *C.I.L.*, viii, 9877. See also

¹ R. CAGNAT, *Cours d'Épigraphie Latine*, 4th. ed., p. 62.

² CAGNAT, *Cours d'Épigraphie Latine*, 4th. ed., p. 63,

n. 2; MOMMSEN, *Gesamm. Schr.*, vi, 29, n. 4; WILMANN, in *C.I.L.*, viii, p. 284.

WESSELY, *Wiener Studien*, xxiv, 1902, 101, on *Κλάσσης Δούσης Ἀλεξανδρε(ν)ῆς* of the year 143-4 A. D.¹ We may also compare *Austedonum*, a local variant of *Augustodunum*. Possibly *C.I.L.*, vii, 231, *n(umini) Augst(i)* is a preliminary stage of this shortening, though it may also be explained as an abbreviation. The editor referred this inscription to the second century A. D. For *Austus* equal *Augustus* see *C.I.L.*, ii, 2705=5728, with which CUMONT, in PAULY-WISSOWA, s. v., compares *Août* and *Aoste*.

The marks at the ends of lines 5 and 6 are line fillers such as are often seen in manuscripts.

Donati 5. A well trimmed and adorned slab of marble .69 by .22 m.; the letters average .020 m. high; punctuation triangular. The figure at the top is probably an urn. There is a hole through the bottom of the slab as in Nos. 4 and 6. Plate 15.

D · M
 CASSIAE MAR
 CELLAE · M CAS
 SIVS CALLIS
 TVS ET PERELIA
 HILARITAS
 FILIAE PIISSIM ·
 VIXIT ANNIS
 IX DIEB XX
 HOR VI

The letters show considerable influence of rustic capitals (note also the *h* in the last line), but may be dated before the end of the second century. *Cassia Marcella* is a combination not found in *C.I.L.*, vi, though *Cassia* is well known. The combinations *Claudia Marcella*, *Julia Marcella*, etc. are given in the index to *C.I.L.*, vi.

Cassius Callistus is also not a known combination, though *Claudius Callistus*, *Julius Callistus* and others are found in Roman inscriptions. *Perelia* and *Hilaritas* are common names but not elsewhere found together.

We may note that *vixit* in line 8 has the correct *I longa*.

Donati 6. This is on the back of a large architectural fragment .46 by 1.02 m. At first only the upper half of the inscription was supposed to exist but later I found the lower half on the floor of a henhouse in the garden. It was found at the same time as the other inscriptions but had been placed with the inscription on the under side and so forgotten. As united it becomes much the most important inscription in the collection. The letters average .028 m. high. One ivy leaf punctuation between *D* and *M*, elsewhere small triangular dots. There is a hole through the bottom of the stone as in nos. 4 and 5, and slight traces of ruling above and below the letters. Plate 15.

D & M
 IVLIAE · FORTVNATAE
 VIXIT · ANNO · VNO ET
 MENSES · X · DIEB · VIII
 IVLIVS · FLORVS · ET ·
 ONESIMVS · CAESAR ·
 N · VILICVS · BALIN ·
 CAENIDIANI
 ALVMNAE · DVLCISSI
 MAE · FECERVNT

Julia Fortunata is a common name, found some twenty times in *C.I.L.*, vi. The person is often designated as a freedwoman. *Julius Florus* is also a well-known name, but elsewhere always with the *praenomen*. As he is here coupled with *Onesimus*, apparently a slave, *Julius Florus* was probably a freedman. The omission of the *praenomen*

¹ Cf. *B. G. U.*, iii, 741, 7. See MAYSER, *Gramm. d. gr. Papyri a. d. Ptol. Zeit*, pp. 163-4, for omission of *γ*.

is rather frequent in the names of freedmen. Onesimus is here designated as *Caesar(is) n(ostri) vilicus balin(ei) Caenidiani*. We are thus given the name of an ancient bath not elsewhere mentioned and learn that it was the property of the imperial family and had a *vilicus* in charge. I know of no other case of a *vilicus* in charge of a bath, though *vilici* are found in charge of buildings, aqueducts, and taxes. He might be either a building superintendent or a financial officer, if we assume that this was a public bath. In any case we may assume that it was a separate building and had its own superintendent. The designation of an official as *Caesaris vilicus* is found in the index of DESSAU as also *Augusti nostri vilicus*. As this inscription is clearly of the second century it is necessary to understand the officer in our inscription as steward of the heir apparent. Therefore the bath was considered the Caesar's private property. The fact that the bath has a special name implies that it was a separate building and not his personal bath in the imperial palace. It was then a public bath and the Caesar maintained it for the revenue.

The name *Caenidianum* is something of a puzzle. The only name that I have found from which it is possible to derive it is *Caenis*, *-nidis*, the most famous possessor of which was the mistress of Vespasian, Suetonius, *Vesp.*, 3; 21; *Domit.* 12. She was held in high honor as long as she lived. Vespasian's wife had died before he gained the throne.

There seems no reason for associating this bath with the imperial palace, though Suetonius, *Vesp.*, 21, mentions the *pallacae*, the successors of Caenis, and the *balineum* and *triclinium* of Vespasian in the same sentence.¹ As stated above it seems more likely that this was a public bath, which produced revenue from the admission fees.

Even if it be admitted that *Caenidianum* is derived from *Caenis*, it does not follow that this bath was built by the mistress of Vespasian, Antonia Caenis, though she was an imperial freedwoman; cf. *C.I.L.*, vi, 12037 and also 4057 and 20950. The name Caenis occurs rather often in inscriptions implying or stating that the woman was an imperial freedwoman; cf. Aelia Caenis, vi, 8476; Aurelia Caenis, vi, 2286; Claudia Caenis, vi, 6422; Flavia Caenis, vi, 28967; 35304; and especially *Valeria Messallinae Augusti l. Caenis*, vi, 5537.

Julia Fortunata is called *alumna* (line 9) but that probably indicates only the connection with Onesimus. The likeness of names shows that Julius Florus was the father, and he was probably in some way a subordinate or associate of Onesimus.

Donati 7. A slightly adorned slab of marble .76 by .22 m.; letters .020 to .025 m. high. One edge broken somewhat with hammer or chisel when used in some ancient structure, the cement from which has not been entirely removed. Ivy leaf punctuation after D and M, elsewhere triangular dots. Plate 16.

D ♂ M ♂
 T FLAVIO ·
 eu]TYCHATI
 c]LAVDIA ·
 TERTVLLA
 c]ONIVGI
 b]ENE · ME
 RENTI

In line 2 a bit of the top of T is still discernible. The L of Flavius was started too near the F and then slanted away from the bottom of it. The cement from the top of the L has now been removed making the letter certain. In line 3 Eutyhati is a rare form of the dative not elsewhere found in Latin. T. Flavius Eutyhas of *C.I.L.*, vi, 18059 and 38367 a, has the genitive each time *Eutyche*. *C.I.L.*, vi, 32744 gives the name M. Antonius Heutucas in the nominative. In Greek both PAPE and PREISIGKE record *Εὐτυχᾶς* as of two declensions, the genitives being *Εὐτυχᾶ* and *Εὐτυχᾶτος*. The related names Eutyches and Eutyclus are very frequent both in Latin and Greek. Claudia Tertulla is a well-known name, occurring in five inscriptions listed in the index of *C.I.L.*, vi. The name is practically certain in our inscription as faint traces reconcilable with parts of T and E are discernible.

¹ Cf. the similar combinations, *Anth. Lat.*, ii, nos. 1318, 3; 1499; 1923; references which I owe to my colleague, Professor A. W. Van Buren.

II.

There is a second group of inscriptions, twenty in number, in the possession of Signor Gastone Del Frate, Vic. Massimo 6, Monte Mario. They adorn the sides of four square pillars in the garden, but were none of them found in that neighborhood. All were bought from antiquity dealers in Rome during recent years. The question of age and authenticity must be considered individually in each case. The inscriptions were bought separately and from sources not entirely free from suspicion. The place of origin is in no case known, but is assumed to be Rome or its immediate vicinity. None of them seem to have been published.

Del Frate 1. A plain slab of marble, .49 by .21 m.; the letters average .025 m. in height and are rather crudely cut but all look old except line 8, *fecit et*, which has a queer rather fresh look. As there is no other reason to suspect the inscription the odd appearance of this line is perhaps due to an improper method of cleaning. Plate 16.

D · M ·
 COMINIAE
 CHARITE Q V
 AN XXXV · D · XII ·
 COMINIVS
 EVCARPVS
 CONIVGI B M
 FECIT · ET ·
 LIBERTIS · LIBER
 TABVSQVE POS
 TERISQVE
 EORVM

This is a characteristic tombstone possessing little of interest. *Charite* is here dative, so it is the Greek declension as in DESSAU, 4874, *Charites*, a genitive, and 1736, *Carithe* (= *Charite*), a dative. The nominative is *Charite*, not *Charis*. *Cominius Eucarpus* is named in *C.I.L.*, vi, 16024 and the same man may be meant: *Dis Manibus | Cominio Eucarp[o] | Cominae Anthus[ae] | C. Julius Ch[arito] amicis fe[cit] | bene mer[entibus]*.

Del Frate 2. A very crude inscription on a white slab of marble, .39 by .17 m.; adornment *tabula ansata*; letters vary from .015 to .025 m. in height. The whole surface has been cleaned roughly and unskillfully but acid does not seem to have been used. It is a Christian inscription and the errors and bad lettering are characteristic. The letters were not cut with the regular chisel but made with a drill. The odd cursive *m* is found on papyri rarely from the first century A. D. on; the cursive *b*, thus turned, I have not noted earlier than the fourth century. The inscription seems earlier. Plate 17.

PARENTES FECERVN FILI
 E CARISSIME QVE BI
 XIT ANNOS IIII DIEBVS
 XXX DORMIT IN DEO
 DEF CAL OCTOB

This is a noteworthy inscription because of the unusual formulas. The omission of the daughter's name is best explained by considering that it was on another piece of marble and better cut. The surviving inscription was cut by some one absolutely ignorant of the stone-cutter's art and almost equally so of the art of writing. It may be a very early Christian inscription; note *fecerun*, *e* for *ae* three times, *bixit* for *vixit*, and the change of cases from *annos* to *diebus*. All these features occur often in Christian inscriptions but also in others of the common people. *Dormit in Deo* is most unusual. I can cite only *dormit in pace in Deo*, DIEHL, *Ins. Lat. Chr. Vet.*, 3299. *In Deo* is found alone with the name of the deceased in DE ROSSI, *Inscr. Christ. Urb. Romae, N. S.*, i, 327, and *vivas in Deo*, DE ROSSI, 389; see also DIEHL, iii, pp. 338f. The abbreviation *def.* = *defuncta* or *defuncta est* is rare for *dep.* = *deposita*. It was

borrowed from pagan inscriptions and occurs in early Christian ones; cf. DIEHL, 2797 H (*def. die idus Oct. dormit in pace*). *Cal.* for *Kal.* occurs rather often, and *Calendas* even oftener; cf. DE ROSSI, 107, (*Cal. Martias*), and DIEHL, iii, p. 305. The *tabula ansata* ornament is rare and early in Christian inscriptions from Rome. For real *tabulae ansatae* as mummy labels, first and second centuries A. D., see WESSELY, *Mitt. aus d. Samml. Pap. Rainer*, v, 15 ff.

Del Frate 3. A slab of marble .34 by .30 m.; the letters are well cut and very even, .038 m. high. Note the rustic capital forms. It may be as early as the end of the second century. Plate 17.

D M
IVNIAE
ONESIME

Junia Onesime is a name not elsewhere found but Aurelia Onesime, Claudia Onesime, Julia Onesime, Hostilia Onesime and Septimia Onesime are given in the index of *C.I.L.*, vi. There is no reason to doubt the authenticity of the inscription.

Del Frate 4. The marble slab measures .39 by .31 m.; letters average .030 m. high. Punctuation is triangular. The surface of the inscription and even the letters were badly scratched by cleaning with an iron tool. The cutting of the letters is old. There are slight traces of ruling both above and below the letters. The scratches are faint and look old. Plate 18.

D M
SEPTIMIO PERTINACI AUG·LIBER·
BENE MERENTI·QVI·VIXIT
ANNIS XXXXV AEL·FVSCI
NA VXOR ET AFL VITALIONI COG
NATO QVI VIXIT ANN XXXV
B·M·

At the end of *Septimio* in line 2 there is a straight stroke at the bottom of O, perhaps replacing the missing punctuation mark. In line 5 AFL is the stone-cutter's error for AEL.

This is the tombstone of a freedman of the Emperor L. Septimius Severus Pertinax. Therefore it should be dated in the first half of the third century A. D. The lettering agrees well with this date.

It may be noted that the combination Septimius Pertinax is not found in the index to *C.I.L.*, vi, though Aurelius Pertinax, Helvius Pertinax, etc. occur. The abbreviation of the names *Ael(ia) Fuscina* and *Ael(io) Vitalioni* is not unusual in the case of imperial freedmen and their descendants. Claudius, Flavius, etc. are similarly abbreviated under like circumstances.

The combined name Aelia Fuscina is not found elsewhere. Fuscina is rare combined with other names, except in *C.I.L.*, xii, which has seven instances. As the index of *cognomina* for *C.I.L.*, vi has not appeared no statement can be made for that volume, though the name is certainly rare. The masculine Fuscinus is more common, occurring even in JUVENAL, xiv, 1. Aelius Vitalio is a common name in *C.I.L.*, vi, occurring twice with a *praenomen* and four times without.

Del Frate 6. The marble slab is .345 by .250 m.; letters average .010 m. high. Punctuation is triangular. There are remnants of red color in the letters. These were cut between ruled lines scratched in the surface. I do not recall having seen such clearly marked rulings elsewhere. The cutting of the letters is fairly good and looks old. I see no cause to distrust the antiquity of the inscription. It probably belongs to the third century. Plate 17.

D M·
IVLIAE·THEMIDI·
COIVGI·DVLCISSIMAE·
FECIT
M·FVRIVS·PHILVMENV·

Julia Themis is a rare name. It is found in a first century inscription, *C.I.L.*, vi, 8839 and *Themis* occurs rarely in other combinations. M. Furius Philumenus is not known elsewhere. The cognomen indicates that he was a

freedman of Greek origin; cf. *C.I.L.*, vi, 583 (*P. Aelius Aug. l. Philumenus*). *φιλούμενος* is a name found six times in PREISIGKE, *Namenbuch*.

Del Frate 7. The slightly irregular piece of dark marble measures .35 by .19 m.; letters average .030 m. in height; adornment, rude *tabula ansata*. The top of the inscription has been broken off but only the ornamental lines are lost. In poorness of workmanship it compares with the worst Christian inscriptions, though it is undoubtedly pagan. The inscription has never been properly cleaned. It came from some old building and there is much hard mortar on the surface and in the letters. Plate 18.

ΧΑΙΡΟΙΣ
ΒΛΑΣΤΗ
ΣΥΜΒΙΕ
ΑΓΑΘΗ
ΣΩΦΩΝ
ΚΑΙ ΦΙΛΑΝ
ΔΡΕ

In line 5 *σωφων* was written at first but corrected to *σωφρων* by making the top of the *φ* into a *ρ*.

It is a simple affectionate inscription set up by a husband to his wife. We translate: Farewell to Blaste, my wife, good, prudent, and husband-loving.

The optative *χαίροις* expressing a wish is good Greek, but this use for *χαῖρε* is rare. LIDDELL and SCOTT cite from the Anthology a single case of the optative meaning farewell. VAN HERWERDEN, 1580, seems to have a similar one, but with the meaning "greeting" rather than "farewell"; cf. *Id.*, s. v. *χαίροις*. The infinitive is also used with both these meanings.

Blaste, meaning a sprout or a child, was a woman's name known in Rome; cf. *Claudia Blaste*, *C.I.L.*, vi, 34890; 34912.

The inscription is difficult to date with certainty. The round *sigma* begins in the first century B. C.; the cursive *omega* and round *epsilon* at the end of that century; the curved so-called Egyptian *mu* appears rarely from the end of the first century A. D. on. The combination of all these late forms could hardly occur before the second century A. D. The language, on the other hand, prevents us from dating the inscription much later than that century.

Del Frate 8. This fragment of marble measures .21 by .20 m.; letters of the first two lines are .035 m. high, of the last line only .025 m. There are some remains of red color in the letters, but these have been cleaned or scratched out so thoroughly with an iron tool, that it is difficult to say what the original condition was. On the whole I have little doubt of its genuineness. Plate 17.

OCENTI SP·
VI VIXIT A
E III NON SE

This has the general form of a Christian inscription, though the characteristic marks are missing. It could be filled out: [*mater Inn*]ocenti Sp. [*filio q*]ui vixit a[n. I dep. in pac]e III non Se[pt].¹

However Innocens seems generally the name of a woman, while Innocentius is used for the man. Both names occur rather frequently in DE ROSSI, DIEHL, and DESSAU. The punctuation after Sp. is a round dot and seems certain. Therefore Innocens was illegitimate.

Del Frate 10. A beautiful marble fragment .15 by .13 m.; ornament, *tabula ansata*; letters .035 m. high in the top line and .028 m. in the second. The letters are finely cut and of the best type. The inscription belongs to the first century A. D. Plate 20.

ANIA
SA

It is the tombstone inscription of a woman of two names in the nominative.

¹DR. WICKERT of Berlin suggests [*Inn*]ocentis p[...]. between these interpretations. The inscription is too fragmentary to admit of a decision

Del Frate 14. A marble slab incrustated with cement, broken at the bottom, .17 by .35 m.; letters, .020 m. high, are fairly well cut but not older than the third century A. D. Plate 20.

D M
PAREN
TES DIO
FILIO DV
LCISSIMO

Dius is a known *cognomen*; cf. DESSAU, 3848; 6156; 8302. The form of the inscription is most unusual for a pagan inscription. Compare *C.I.L.*, vi, 2440*, =22918, now in the Lateran: *D. M. parentes A. Nerio Aphrodisio fil. dulcissimo v. an. I m. I d. VII.* The final judgement of the EDD. was that it is genuine. In the case of our inscription there is nothing to cast doubt on its genuineness except the unusual form.

Del Frate 15. A marble fragment encrusted with cement, .24 by .24 m.; letters .020 m. high, crudely and not deeply cut. At the top two birds facing a rude T. The bird at the left is more than half broken off. Plate 20.

T
IN PACE · QVI · VIX
IS · VI · DIES · III

This is a Christian inscription and its execution, as often on tombstones of common people, is very crude. The T at the top between the two birds is the earliest form of the cross; ¹ cf. W. LOWRIE, *Monuments of the Early Church*, p. 244: « There is no doubt that the cross as commonly used had the shape of the *patibulum* (Fig. 80, *i* = T). An upright stake with a transverse bar above it was all that was practically required. Just because it was the ordinary instrument of punishment, it was very rarely represented in Christian art, although as we have seen, objects of similar form, like the letter T, were taken as symbols of it. » The two birds were therefore intended for doves, the crudeness being due to the inability of the stone cutter. The inscription is of the simple early form often found; cf. DE ROSSI, *N. S.*, i, 1118: *Valeria in pace q[uae] vixit*. Here we lack only the name of the boy, and may read: *in pace, qui vix(it) | [ann]is VI dies III.* The joining of ablative and accusative in this fashion is not unusual, cf. Del Frate 2 above. Instead of *[ann]is sex* one might read *[mensib]us sex* for a young child or supply *annis* after *vixit* and a numeral of three or four letters to balance the beginning of the second line. This would make room for a name of twelve letters at the beginning instead of five.

I have no hesitation in classing this inscription as genuine and referring it to the third century or near that time. It is perhaps the earliest Christian tombstone to show the cross.

Del Frate 16. A triangular piece of marble .38 by .16 m. in its largest dimensions. The letters are .020 m. high. The inscription is only moderately well cut and is not earlier than the third century A. D. Plate 19.

POMPVSIDIA ·
SEX · L · ARCHE

Pompusidia is a known gens name found four times in the feminine in *C.I.L.*, vi. *Arche* is also known.

Del Frate 17. An unadorned piece of marble .16 by .25 m.; letters crude varying from .028 to .030 m. high; crude ivy leaf punctuation. The date is not earlier than the third century. Plate 19.

SALLVSIT
LIB IANVS
ET ʘ IVDA ʘ
MARLAÆ
SORORI
DVLCIS

¹ MARUCCHI, *Epigrafia cristiana*, 57, notes that a cross concealed in the form of T inserted within a name is found in two inscriptions, not later than the 3rd. century,

of the cemetery of Sts. Peter and Marcellinus on the Via Labicana.

The second letter of the first line is surely an A, though the cross stroke is shallow and crosses only the first stroke of the A. IT at the end is an error for TI. In the second line DR. WICKERT would read *Libianus* as a cognomen for *Livianus*, but it seems to me easier to make Janus and Juda brothers than Livianus and Juda. In any case both are freedmen. In the fourth line the doubtful L is probably for I. The last letter was a P at first but then changed carelessly to E. It may be that the stone cutter started to make an R, a dittography from the first half of the name, that would have produced *Mariariae*, but saw his error after completing the top and made the careless correction. The inscription may be corrected and expanded as follows: *Sallusti lib(erti) Ianus et Iuda Mariae sorori dulcis(simae)*.

Janus is a name, probably of a slave, found twice on vases, *C.I.L.*, ii, 4970, 234; iii, 14373, 16. Iuda is a known name of a Jewish slave or freedwoman; cf. *C.I.L.*, v, 4221 (*Annia Iuda*); DIEHL, 4930; also of a Jewish man, DIEHL, 4887, 4993. Maria is also Jewish or Christian. We may assume that all three persons named were of Jewish origin and were former slaves of a certain Sallustius. One of the consuls for 363 A. D. was Sallustius, so the family continued rich and powerful well into the fourth century. This inscription from its appearance does not need to be considered older.

Del Frate 18. A fine piece of marble with beautiful raised moulding around the edge .47 by .28 m.; letters .020 m. high except the last two lines which are .015; punctuation triangular dots. It is an excellent inscription probably of the first century A. D. It was later used in some building and is still somewhat disfigured with cement. Plate 20.

D · M ·
C · IVLIO · MAXIMO · VIX · AN ·
XXXII D · XII · FEC ·
C · IVLIVS ZMARAGDVS ·
PATER · FILIO · PIENTISSIMO ·
ET · SIBI · LIB · LIBERTABVSQ ·
POSTERISQ · EORVM

C. Julius Maximus is a very common name especially of freedmen. C. Julius Zmaragdus is found once in *C.I.L.*, vi, but this can not be the man named in our inscription, since LANCIANI, *Bull. Com.*, 1877, p. 37, no. 64, dates the inscription (vi, 35572) in the second half of the third century.

Del Frate 19. Marble altar .30 m. wide by .25 m. thick and .49 m. high; letters of the top line .017 m. and of the other lines .015 m. high; punctuation triangular; inscription on front of altar, urn in relief on left face, and *patera* on right face; a rectangular hole .035 m. by .085 m. and .035 m. deep in the top of the back of the altar served to fasten the altar to a columbarium or some other object; the much worn adornment on the edge of the top above the inscription seems a wreath with fillets. Plate 19.

DIS · MANIBVS
EVPROSITVS
AVG · LIB
PROC · FISCORVM
TRANSMARINOR ·
ELPIDI · LIB
OPTIME
DE SE MERITAE
FECIT

The letters are well cut and all have simple, older forms. Note particularly P G R M F. There is a correct use of *I longa* in line 1. The inscription belongs to the first century.

The name *Euprositus* is not found in any of the indices and probably does not appear in *C.I.L.*, vi. It is perhaps an error for Euprosinus, which would be a corruption from Euphrosynus. *Elpis* is a well known woman's name; see PAULY-WISSOWA, *s. v.*, for the name of the wife of Herod I of Judaea.

The statement of real importance in this inscription is that Euprositus, an imperial freedman, was *procurator fiscorum transmarinorum*. This is a most unusual title, if indeed there is any evidence for it elsewhere. Yet the inscription is undoubtedly genuine and early. From the character of the letters I am inclined to place it under the Flavians but it is possible to put it somewhat earlier.

The plural *fisci* referring to the imperial treasury is so rare that ROSTOVITZEFF, in PAULY-WISSOWA, s. v., refers the two instances, SÜETON., *Aug.*, 101, 4, TACITUS, *Ann.*, i, 37, to money in general or to the purses or baskets in which it was kept. Yet SÜETON., *Aug.*, 101, in *aerario et fisci et vectigaliorum residuis*, seems to use the word almost as a technical term. We also know that under the Flavians or earlier¹ several separate treasuries arose, each called *fiscus*. The best established of these are *fiscus Gallicus*, *f. Alexandrinus*, *f. Asiaticus*, *f. Iudaicus*, *f. castrensis*, *f. frumentarius*, *f. hereditatium*, and *f. libertatis et peculiorum*. All of these except the *fiscus Gallicus* seem to have been special treasuries in Rome for the receipt or expenditure of imperial funds. It is conceivable that there should have been other *fisci* in this early period before the imperial *fiscus* and *res privata* were separated and definitely organized. A union of all these might be referred to in the plural as *C.I.L.*, vi, 697, *debitum fisci*, an inscription of the time of Hadrian.

It is not however likely that we have such a reference here, nor was Euprositus a man of note, as must have been the case if he were in charge of several great treasuries. Furthermore the addition of the adjective *transmarinorum* distinctly limits the meaning and would doubtless make the tax implied here refer to some small matter or people as in the *fiscus Alexandrinus* or *Judaicus*, if we had the information available for defining the word. We may feel sure that it does not refer to a treasury for all the provinces «across the seas», though the most common meaning of *transmarinus* is purely general, «across the sea». There are however a couple of passages, which have a more limited meaning, which seem to hint at something like a technical use; CICERO, *de Orat.*, iii, 135, *tramarina et adventicia*, meaning Greek, and LIVY, xxvi, 24, 4, where it is stated that the Aetolians were the first of the *gentes transmarinae* to make an alliance with Rome. This time the adjective probably means «across the Adriatic» for Massilia, Saguntum and also Syracuse under King Hiero were allies before this time. Probably LIVY, xl, 2, 6, *legationes transmarinae*, is merely an extension of this use so as to include Asia Minor. Cf. also VELLEIUS PATERCULUS, ii, 24, 3; 44, 2; 51, 1; 60, 5; 62, 3; SÜETON., *Jul.*, 42, 1.

As the *procurator fiscorum transmarinorum* seems to have been resident in Rome, for he set up a tombstone to a favorite freedwoman there, the tax which his treasury handled should be one applying to Italy or to the whole Empire, *i. e.* on traders or other people coming to Rome or traveling throughout the Empire. It should be such a tax as that handled by the *fiscus Iudaicus* or the *fiscus Alexandrinus*.

A little support for this view of the subordinate character of the *procurator fiscorum transmarinorum* may perhaps be obtained from the fragmentary inscription, *C.I.L.*, vi, 8515:

MARTIALIS A[ug · lib ·
TABVLARIV[s
PROC · FISCORVM
e]T FISCI · CASTR[ensis
pr]OC · H[ered
fisc]I LIBE[rtatis

No statement is made regarding the age of the inscription. Only *procurator* is surely abbreviated, though *Augusti* and *libertus* probably were. Certainly *tabularius*, *fiscorum* and *fisci* were not.

There is little doubt that we have here a *cursus honorum* in ascending order. *Martialis* was first *tabularius*, then *procurator fiscorum* | *et fisci castrensis*, and finally *procurator hereditatium et fisci libertatis (et peculiorum)*. These are all well-known offices except *procurator fiscorum*, and the combination of two of these *fisci* under one *procurator* accords with their minor character as known and as suggested here by the promotion from *tabularius*. There are however several points in the inscription as published, which suggest queries.

¹RICE HOLMES, *The Architect of the Roman Empire*, Oxford, 1931, p. 178, again maintains the view that the

central *fiscus* was established under Augustus.

Martialis is the name of a class of slaves, as well as of an individual, cf. CICERO, *pro Cluent.*, 43, *Martiales ministri publici Martis*, and PAULY-WISSOWA, viii, 1466, showing that these were temple slaves. Such a slave freed by the Emperor might take the name Martialis, but should also have preserved his former slave name. Imperial freedmen and slaves with two names, both apparently *cognomina*, are not rare; cf. DESSAU, iii, p. 927. Martialis occurs frequently alone though most commonly as the *cognomen* of a freedman.

The title *tabularius* must have the office added in which the freedman was accountant. As this title was set in one letter the line containing it was presumably two letters shorter than the others. In order to be advanced to a procuratorship he must have been *tabularius* in an important office. *C.I.L.*, vi, 8450, shows promotion from *tabularius a rationibus* to *proc. fisci libertatis et peculior.*

Fiscorum alone does not apply to a minor treasury as it must from the connection here.

In the fifth line *hereditatium* seems to give us the nearest approach to the true length of the line. The word might be abbreviated as in the *Corpus* copy but *tabularius* and *fisci* are generally abbreviated when more than the mere case endings of words depending on them is dropped. Therefore we may assume at least eleven letters to fill this line. The space of four letters left between *proc.* and *h[* shows that there was to be no crowding and so probably no abbreviation. As the *c* of *proc.* stands under *s* of *fisci*, this line was inset one letter. There was space for at least twelve letters in the *lacuna* of this line. In the lines above it would be at least ten or eleven letters and perhaps one or two more.

The last line was apparently crowded as no space was left between the words. Therefore *et* would have preceded *fisci* as in line 4. At the end of the line there was room for at least twelve letters. Only six are needed to complete *libertatis*. The full title of this office was *fisci libertatis et peculiorum*, which would call for eighteen letters in the *lacuna*, but with crowding and the dropping of the case endings it could have been managed.

It is clear from all this that one can supply the name of the office at the end of line 2 and *transmarinorum* at the end of line 3. The full form of the inscription may have been somewhat as follows:¹

MARTIALISA[ug · lib ·
 TABVLARIV[s a rationibus
 PROC · FISCORVM[transmarinor.
 e]TFISCI · CASTR[ensis
 pr]OC · H[ereditatium
 etfisc]ILIBE[rtat · et peculior.

In this tentative restoration line 1 needs the second name of the freedman and line four at least six more letters. ROSTOVITZEFF, in PAULY-WISSOWA, *s. v.*, discussing *fiscus castrensis* holds that it refers to the imperial household and is therefore an ambiguous title. An addition to the title such as *dom. Aug.* would fill the line here, and might have been the original non-ambiguous title.

HIRSCHFELD, *Verwaltungsbeamte*, p. 109, notes that the combined title *fiscus libertatis et peculiorum* came under Claudius; cf. *C.I.L.*, vi, 8450 *a*. Our inscription also seems to imply an early origin. Certainly if *fisci libertatis* was to fill the whole line in this inscription the words should have been separated as in the line above. Probably the full name of the office was used.

The restoration of fragmentary inscriptions is always doubtful, but there can be no doubt that the adding of *transmarinorum* here makes intelligible an otherwise impossible title and accords with what we know of the early development of the *fiscus*.

Del Frate 20. Dark gray marble altar of small size; largest measurements .55 m. high, .18 m. wide, and .16 m. thick; inscription on the front of the altar on a surface rather deeply countersunk; on the left face there is an urn in relief and on the right face a patera; the altar was evenly enlarged on all four sides at the top and the bottom; letters average .015 m. high; punctuation triangular; surface much worn. Letters none too carefully made indicate a late

¹See also *Bull. Com.*, vi, 1878, p. 105 on spacing and punctuation.

first century date. Inscriptions 19 and 20 came from the same antiquity dealer and probably were found in the same place. Plate 19.

SILVINA
V AN
VI
D XVI
SPERATA
MATER
FECIT
FILIAE
DVLCISSI
MAE

This is a common form of tombstone inscription. *Silvina* is a known but rare form for *Silvana*. The mother's name *Sperata* is very common. Such simplicity of names indicates persons of the lowest class, perhaps slaves.

The following inscriptions and fragments seem forged or at least modern.

Del Frate 5. Well trimmed piece of marble .40 by .28 m.; letters vary in size between .035 and .040 m. high; the last line is only .029 m. and the addition between lines 2 and 3 only .010 m. high; ivy-leaf punctuation before and after D M. The whole surface has evidently been treated with acid to such an extent as somewhat to obscure the interpolation. The back and edges of the marble show an uninjured surface. Plate 16.

↳ D M ↳
LVCILIA SALVS FECIT
ET PIO TOMAFO PIO IOMAFI
SIBI ET SVIS LIBERTIS
LIBERTABVSQVE
POSTERISQVE EORVM

The reading of the addition inserted between lines 2 and 3 is extremely doubtful. One might suggest *et Plotomaeo Plotomaei*, but against the natural reading of the letters. *Salus* is found as a cognomen only in *C.I.L.*, iii, 3517; 6257, 171, both times probably the name of a man. Its use as the *cognomen* of a woman is questionable. Otherwise the inscription is of a common type.

Del Frate 9. A marble fragment .175 by .165 m.; letters .025 m. high. A manifest forgery since the cutting of the letters still looks fresh. Also the letter O could not stand alone in the last line. Plate 17.

L·GEMIN
PILARG
O

We may compare this with *C.I.L.*, vi, 18999, from which it was probably copied:

D·M
GEMIN
HIL
O

This seems to explain why the O was left standing alone in the last line of the forgery. In the parent inscription the rest of the line and a part of the O are broken off. Yet this forgery has some interest for it raises a question concerning the faithfulness of De Rossi's copy. The presence of the *praenomen* is natural and the name *Pilarg[yrus]* contains a most natural error, which the forger would not have been likely to make.

Del Frate 11. A marble fragment .24 by .19 m. ; large letters are .025 m. high, the others .017 m. Plate 19.

GER
IN
AB INI
CV
ET

This inscription belongs to the Renaissance or later and probably served a legitimate purpose but the fragment is too small to be intelligible.

Del Frate 12. A fragment .20 by .24 m. ; the very crude letters are .022 m. high. The cutting of the letters looks fresh and a red color has been rubbed in. It can not be called a real forgery for the work was not completed. Plate 19.

[vi]XIT.AN

Del Frate 13. A beautifully carved marble doorplate .46 by .32 m. ; letters .025 m. high. Plate 18.

N 4
DOMVS.SOCIETATIS
PORTICVS
CONSOLATIONIS
ET.GRATIARVM

This belongs to the Renaissance or later ; note the Arabic numeral 4 and the beautiful carving. For a similarly cut and adorned inscription belonging to the late sixteenth century compare *Mem. Amer. Acad.*, ix, 1931, 110.





Donati, 3.

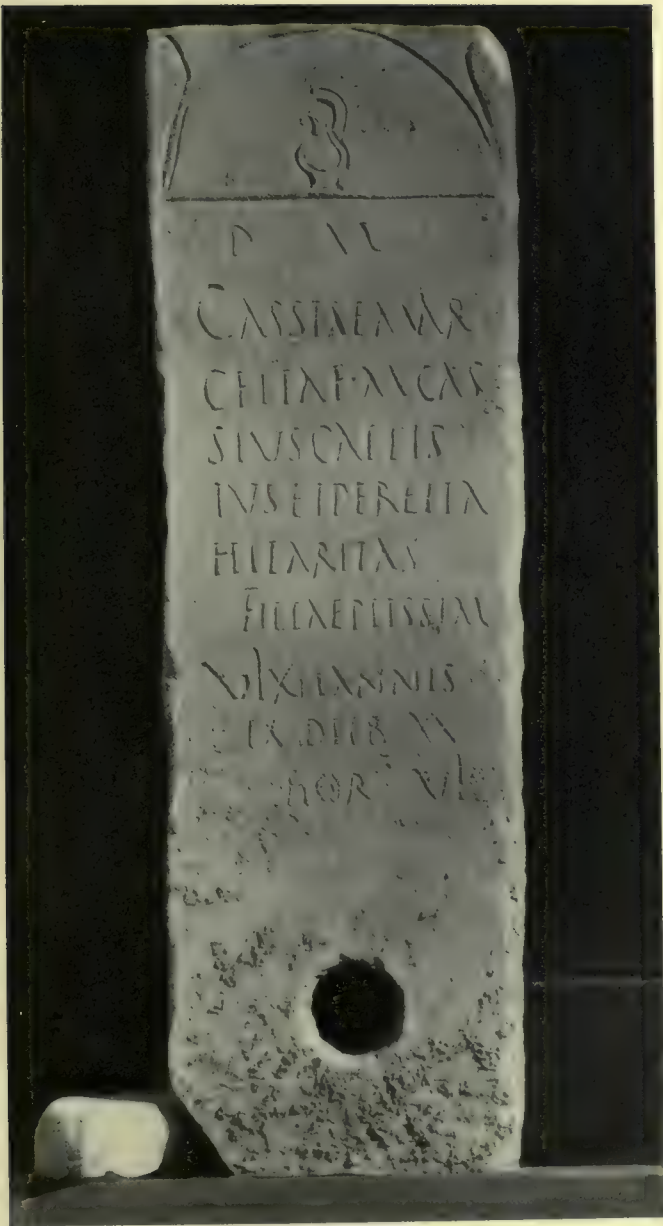


Donati, 1, 2.

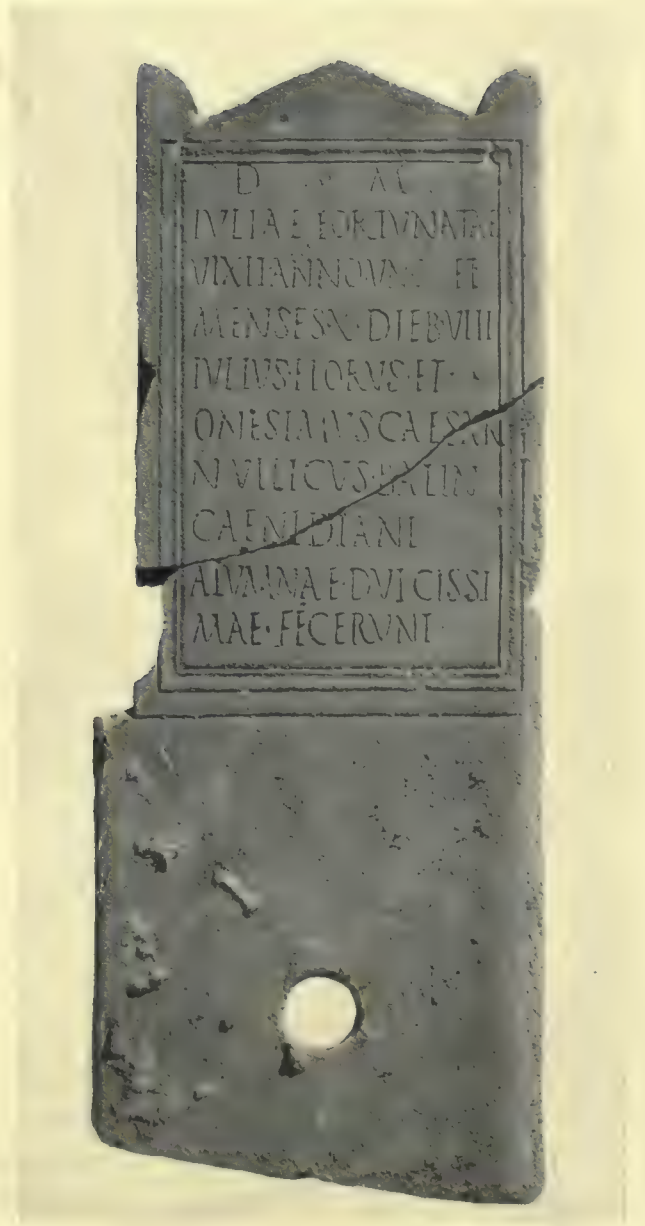


Donati, 4.

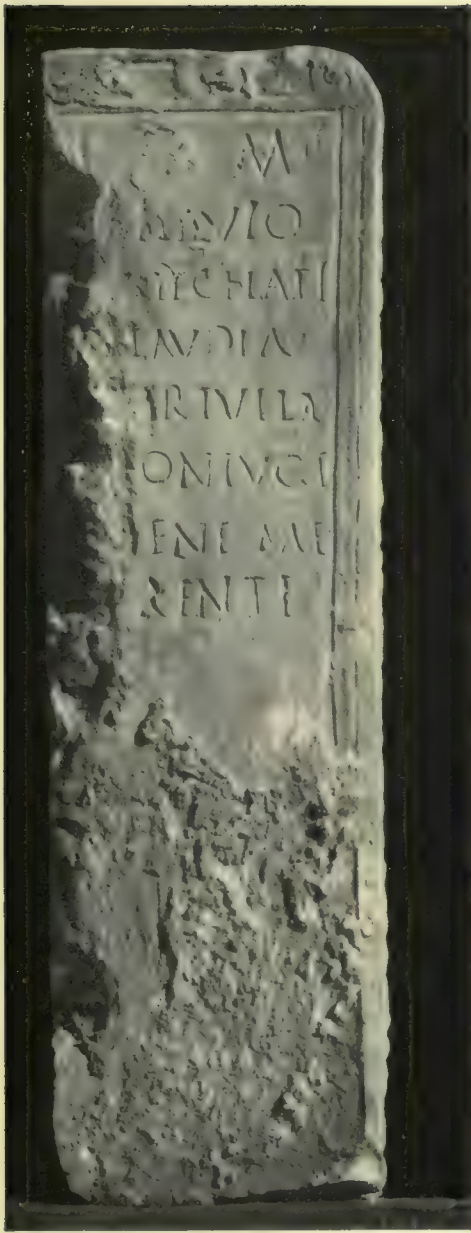




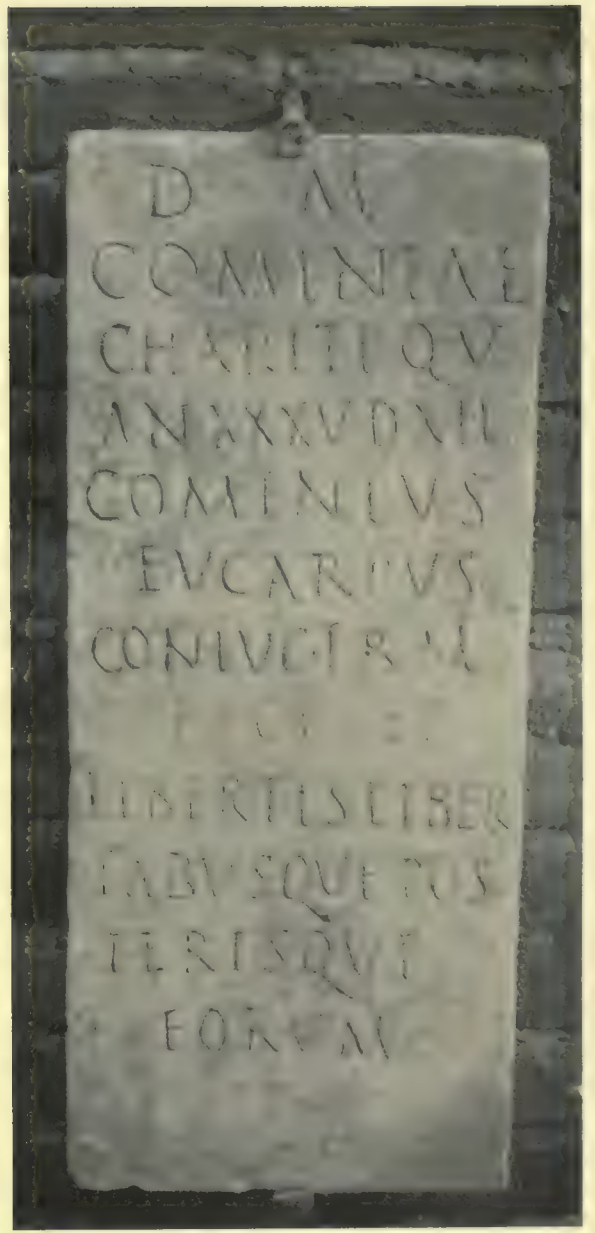
Donati, 5.



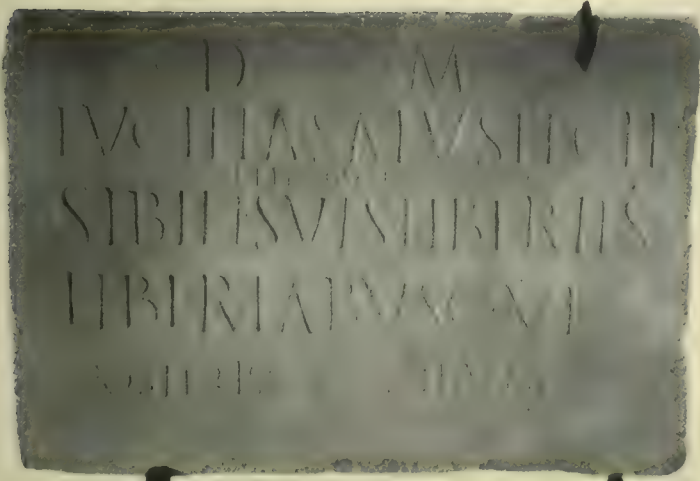
Donati, 6.



Donati, 7.



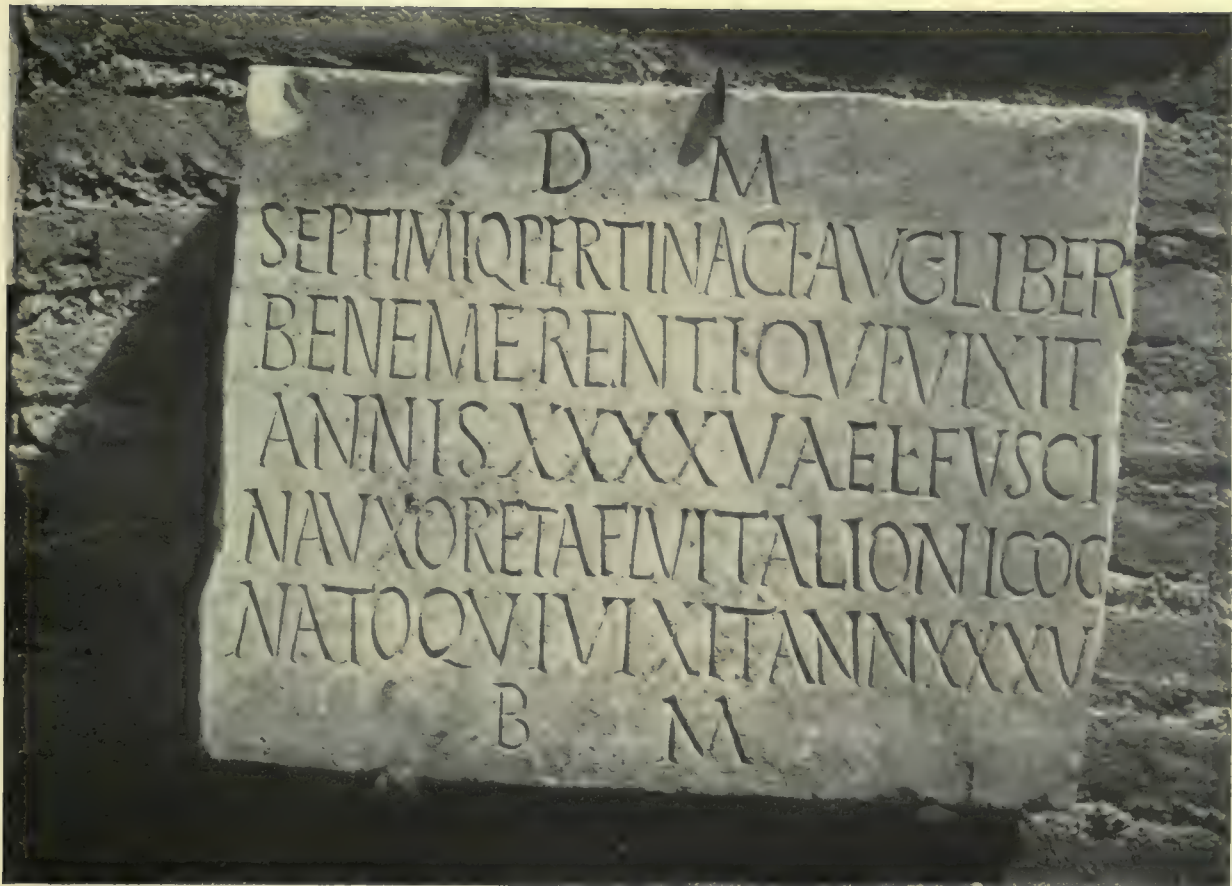
Del Frate, 1.



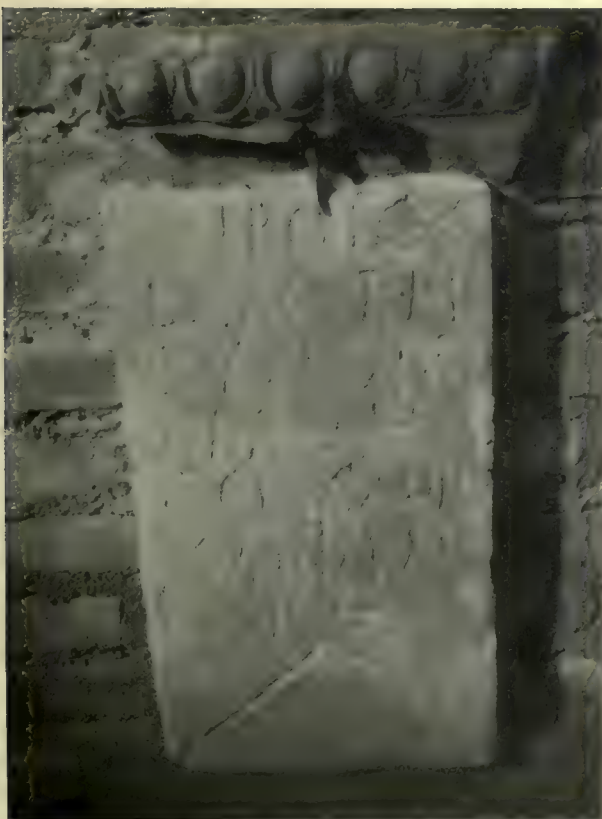
Del Frate, 5.



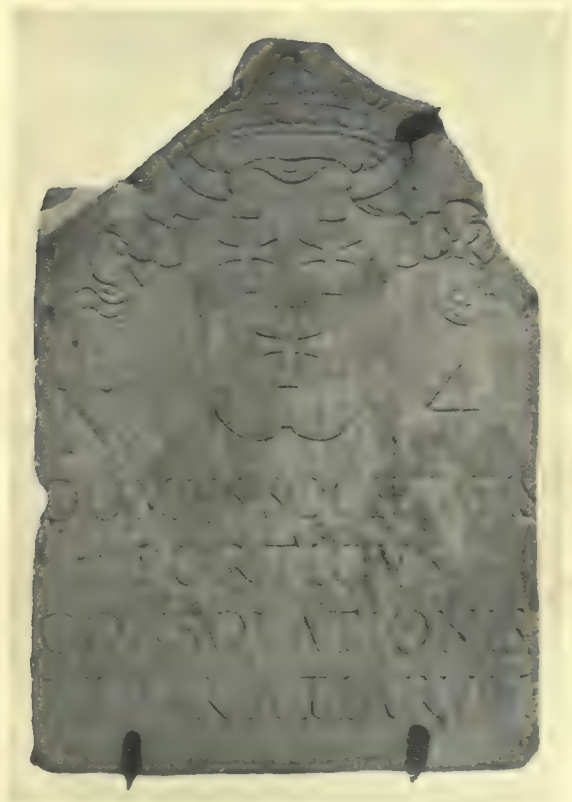
Del Frate, 10.



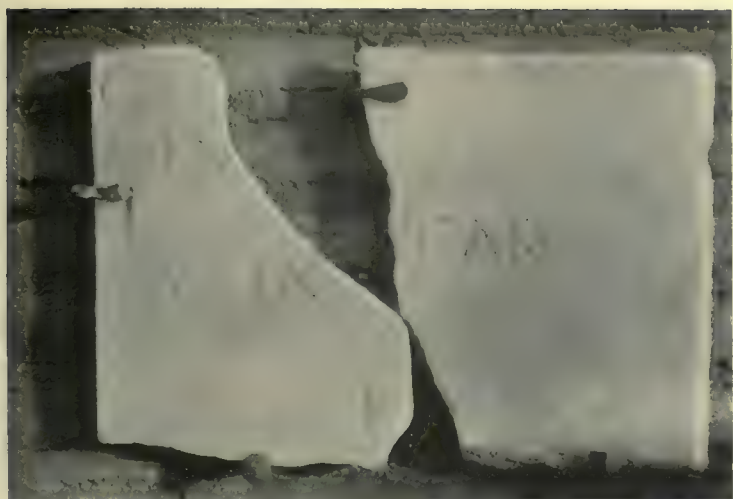
Del Frate, 4.



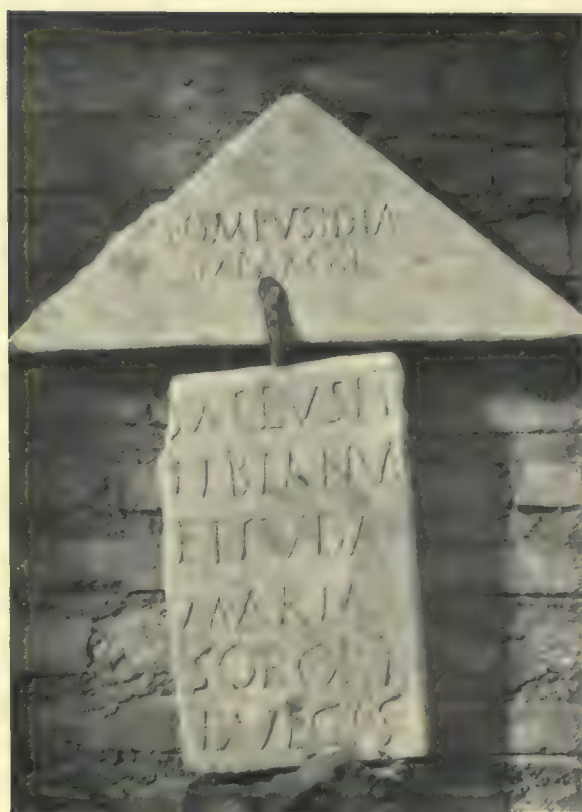
Del Frate, 7.



Del Frate, 13.



Del Frate, 11, 12.



Del Frate, 16, 17.



Del Frate, 19.

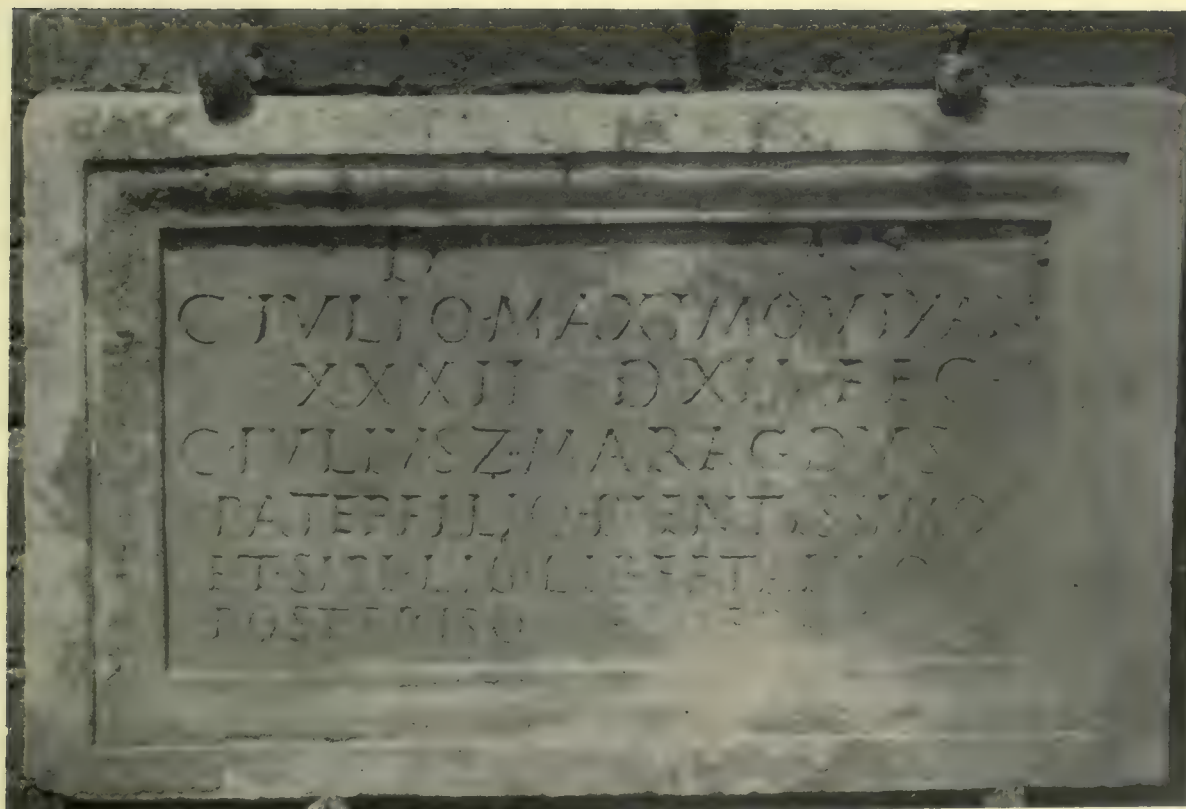


Del Frate, 20.





Del Frate, 14, 15.



Del Frate, 18.



A NEW INTERPRETATION OF *JUPITER ELICIUS*.

MARION AYER RUBINS.

AMONG the many cult titles of Jupiter appears the name *Elicius*, an epithet which is far from clear in its meaning. The evidence in ancient authors is conflicting, and the theories of modern scholars are at variance. Once the name must have had a definite meaning. But by the end of the Republic, there are only indefinite statements.

Jupiter Elicius is mentioned only five times in ancient authors,¹ there is no evidence of any temple or statue of him, although there is mention of an altar dedicated to him on the Aventine Hill; and there have been found no inscriptions which name him. Apparently the cult of Jupiter Elicius was not one of the vigorous ones which formed an essential part of the Roman state religion, but had originated during the primitive period and then experienced no further development. Jupiter Elicius may have represented an early nuministic idea,² but he apparently never emerged clearly and never as an anthropomorphic god. The literary sources ascribe his worship to Numa, or else intimate that in the Late Republic he was a god of the past. In order to explain his epithet, authors employed aetiological myth, an indication that the really essential meaning of *Elicius* had become forgotten and had to be recalled on the basis of logic or legend. It thus appears that we must look for the explanation of Jupiter Elicius in some function which was necessary in the beginning of Roman religion, but which could be dispensed with and was forgotten later.

At present there are two theories regarding the meaning and function of Jupiter Elicius: (1) as a god of lightning; (2) as a god of rain. The explanation as a god of lightning or lightning omens and interpretation arises from a more or less literal acceptance of the accounts in ancient authors: belief in him as a god of rain is proposed by modern investigators of Roman religion who have not been satisfied with the confusion in the literary sources and have identified the cult of Jupiter Elicius with the rite of the *aquaelicium* and the use of the *lapis manalis* to elicit rain. Is either one of these theories correct?

¹ VARRO, *L.L.*, vi, 94; LIVY, i, 20, 7; i, 31, 8; OVID, *Fasti*, iii, 327-392; PLINY, *N.H.*, ii, 140.

² CYRIL BAILEY, *The Religion of Ancient Rome*, London, 1907, 1921, 12-15; W. WARDE FOWLER, *The Religious*

Experience of the Roman People, London, 1911, 118-120; WM. R. HALLIDAY, *Lectures on the History of Roman Religion*, Liverpool-London, 1922, 20-22.

As stated above, Jupiter Elicius is mentioned by name only five times: the name occurs in a definition by VARRO, in a long story in OVID'S *Fasti*, in PLINY'S *Naturalis Historia*, and twice in LIVY.

VARRO (*L.L.*, vi, 94) explains Jupiter Elicius as derived *ab eliciendo*, but does not define what objects are elicited. In addition to this unsatisfactory explanation, VARRO informs us that Jupiter Elicius had an altar on the Aventine. *sic Elicii Iovis ara in Aventino ab eliciendo.*

When we seek an indication of what object was elicited or drawn forth, it appears that PLINY apparently believes it was the lightning, OVID states that it was Jupiter himself, who is asked for information as to expiations for lightning, and LIVY is usually interpreted as stating either lightning or omens.

PLINY (*N.H.*, ii, 140) says that one may read in the Annals that lightning was compelled or obtained: in Etruria there was an old story that Porsena had evoked lightning in Volturnii, and before him the act had often been performed by Numa, according to the authority of L. PISO. In an effort to imitate Numa, Tullus Hostilius was killed by lightning. PLINY concludes this passage with the generalization: "we have groves and altars and sacred rites, and among the Stayers and the Thunderers and the Strikers, we have accepted Jupiter Elicius too." *lucosque et aras et sacra habemus interque Statores ac Tonantes et Feretrios Elicium quoque accepimus Iovem.* This rather vague statement is apparently PLINY'S effort to establish a relation between the evocation of lightning and the title Jupiter Elicius.

OVID gives a different explanation of the term. At first he speaks as though Jupiter Elicius meant Jupiter "Summoned Forth". "They draw thee from the sky, Jupiter, whence later generations now worship thee, and call thee Elicius" (*Fasti*, iii, 327 f.):

*eliciunt caelo te, Juppiter, unde minores
nunc quoque te celebrant Eliciumque vocant.*

But the purpose of the drawing forth is to seek expiations for lightning. In the third book of the *Fasti*, lines 259 f., Ovid asks why the Salii bear the heavenly weapons of Mars and sing of Mamurius. The poet does not give an answer immediately, but creates a special atmosphere and situation. During the reign of Numa, Jupiter terrifies the people by frequent lightning, and Numa is advised by Egeria to seek expiations from Picus and Faunus. The king goes to their haunt on the Aventine, catches them by a trick, but they have no power to give him the information he wishes. So they summon forth Jupiter, by means too mysterious for man to know. After Numa has recovered from his terror he asks Jupiter for expiations for lightning, *da certa piamina..... fulminis.*¹ Jupiter gives the information, but in ambiguous terms, which Numa interprets as he wishes.

¹ OVID, *Fasti*, iii, 333 f.

« Cut off a head », Jupiter said.

The king answered, « We will obey. An onion must be cut, dug from my garden ».

The god added, « A man's ».

Numa said, « Thou wilt get the hair ».

The god demanded a life, and in answer Numa said, « Of a fish ».

Jupiter laughed, and said, « See to it that you expiate my bolts by these means, O man not to be kept from conversation with the gods ». ¹

A much simpler explanation of the effort to learn methods of expiation of lightning occurs in LIVY. Here there is no supernatural element introduced, but the simple statement that Numa built an altar to Jupiter Elicius in order to draw forth the needed information. ² LIVY again refers to Jupiter Elicius in connection with Tullus Hostilius' change of heart towards religion. The story is told that in the commentaries of Numa, Tullus found certain secret sacrifices made to Jupiter Elicius, but he failed in the ceremony and was killed by lightning. ³

These are the only passages which actually name Jupiter Elicius. Episodes which are mentioned here, however, appear in other authors, with no reference made to Jupiter Elicius. The power of evoking lightning is discussed further by PLINY himself and by SERVIUS, and PLUTARCH and ARNOBIUS relate the conversation of Numa with Jupiter, as told by OVID.

In a later book of the *Naturalis Historia*, ⁴ PLINY mentions the evocation of lightning and refers the reader to his previous discussion. He uses the word *elicere*, and again quotes L. PISO for the story about Tullius Hostilius. Here, however, no actual mention is made of Jupiter Elicius.

SERVIUS ⁵ also discussed the power of evoking lightning, although he gives no hint of a relation to Jupiter Elicius. Prometheus had discovered the method of calling forth

¹ OVID, *Fasti*, iii, 339-344:

« caede caput » dixit: cui rex « parebimus », inquit
 « caedenda est hortis eruta caepa meis. »
 addidit hic « hominis »: « sumes » ait ille « capillos. »
 postulat hic animam, cui Numa « piscis » ait.
 risit et « his » inquit « facito mea tela procures,
 o vir conloquio non abigende deum. »

² LIVY, i, 20, 7: quaeque prodigia fulminibus aliove quo visu missa susciperentur atque curarentur. ad ea elicienda ex mentibus divinis Iovi Elicio aram in Aventino dicavit deumque consuluit auguriis, quae suscipienda essent.

³ LIVY, i, 31, 8: ipsum regem tradunt volventem commentarios Numae, cum ibi quaedam occulta sollemnia sacrificia Iovi Elicio facta invenisset, operatum iis sacris se abdidisse; sed non rite initum aut curatum id sacrum esse, nec solum nullam ei oblatam caelestium speciem, sed ira Iovis sollicitati prava religione fulmine ictum cum domo conflagrasse.

⁴ PLINY, *N.H.*, xxviii, 13 f.: Prisci quidem nostri perpetuo talia credidere (al. prodidere), difficillimumque ex his, etiam fulmina elici, ut suo loco docuimus. L. Piso primo annalium auctor est, Tullum Hostilium regem ex Numae libris eodem, quo illum, sacrificio Iovem caelo devocare conatum, quoniam parum rite quaedam fecisset fulmine ictum, multi vero magnarum rerum fata et ostenta verbis permutari.

⁵ SERV., *Ecl.*, vi, 42: Deprehendit (i. e. Prometheus) praeterea rationem fulminum eliciendorum et hominibus indicavit, unde caelestem ignem dicitur esse furatus. Nam quadam arte ab eodem monstrata supernus ignis eliciebatur, qui mortalibus profuit, donec eo bene usi sunt; nam postea malo hominum usu in perniciem eorum versus est, sicut in Livio lectum est de Tullo Hostilio qui eo igni exustus est cum omnibus suis; Numa vero Pompilius impune eo usus est tantum in sacris deorum.

lightning and taught it to men, who profited by it as long as they used it for good purposes. But afterwards it proved their own destruction, as witness Tullus Hostilius, who was burned by the lightning. Numa Pompilius, however, had used it without ill effect, but only in the sacred rites of the gods (*tantum in sacris deorum*). This use of the lightning for religious purposes SERVIUS extends further in explaining that the ancestors did not light the altars, but drew down divine fire by their prayers.¹ In both of these passages SERVIUS uses the verb *elicere*, but does not refer to Jupiter Elicius. PLINY quotes the story of Tullus Hostilius from L. PISO: SERVIUS from LIVY.

The same story as told by Ovid appears in its essential outlines in PLUTARCH and ARNOBIUS, but neither author mentions Jupiter Elicius. ARNOBIUS² quotes VALERIUS ANTIAS as the source of the tale, and he uses the story to show Jupiter as «dull and stupid, mocked by ambiguous words». In the version of ARNOBIUS, Picus and Faunus teach Numa the methods of drawing forth Jupiter, but again for the express purpose of gaining knowledge of the expiation of lightning. «Since Numa did not possess the science of expiating lightning and was desirous of knowing, he followed the advice of Egeria to trick Picus and Faunus.... And after they had been bound, immediately they taught Numa with what methods and sacrifices Jupiter could be drawn forth. When he had received this knowledge, Numa made a sacrifice on the Aventine, drew down Jupiter to earth and sought the manner of ritual of expiation». Then follows the same ambiguous dialogue as found in OVID'S account. ARNOBIUS calls this *talis fabula*.

In his life of Numa,³ PLUTARCH gives alternative versions of the legend: either Picus and Faunus themselves taught Numa the charm against thunder and lightning, or they called Jupiter forth by magic⁴ and he spoke in person to Numa. PLUTARCH believes the story incredible. «Nothing can be so strange as what is told about (Numa's) conversation with Jupiter»; and PLUTARCH ends: «these stories, fabulous and ridiculous as they are, show us the attitude which men of that time, from force of custom, took towards the gods».

In these accounts, we find that OVID, ARNOBIUS and PLUTARCH are telling the same myth, characterized as *fabula* or an incredible story and coming from VALERIUS ANTIAS. Here is an obvious case of an aetiological myth, to explain the primitive expiation for lightning,

¹ SERV., *Aen.*, xii, 200:.... *vel certe, quia apud maiores arae non incendebantur, sed ignem divinum precibus eliciebant, qui incendebat altaria.*

² ARNOBIUS, v, 1: *In secundo Antiatis libro.... talis perscripta est fabula: Numam illum regem, cum procurandi fulminis scientiam non haberet essetque illi cupido noscendi, Egeriae monitu castos duodecim iuvenes apud aquam celasse cum vinculis, ut cum Faunus et Martius Picus ad id locorum venissent haustum — nam illis aquandi sollemne iter huc fuit — invaderent, constringerent, conligarent.... expergitosque illos statim perdocuisse regem, quibus ad terras modis*

Juppiter posset et sacrificiis elici; et accepta regem scientia rem in Aventino fecisse divinam elixisse ad terras Iovem ab eoque quaesisse fulguritum procurationis morem. Iovem diu cunctatum «expiabis» dixit «capite fulgurita.... quoniam me tamen tua circumvenit astutia, quem voluisti, habeto morem et his rebus, quas pactus es, procurationem semper suscipies fulguritorum.»

³ PLUT., *Numa*, 15 (transl. by Bernardotte Perrin, Loeb. Class. Library).

⁴ *Ibid.*, 15, 5: ἀλλ' ἐκείνους μὲν καταγαγεῖν τὸν Δία μαγεύσαντας.

which PLUTARCH states was still practiced in his day, with onions, hair and sprats.¹ According to these authors, Jupiter himself was drawn down from the sky, but the term *Elicius* cannot answer to that definition. *Elicius* expresses an active idea: the god who elicits, not the god who is elicited.² There exist the following cult titles of Jupiter, exclusive of those merely formed from place names, with the ending *ius*: *Elicius*, *Feretrius*, *Fidius*, *Jurarius*, *Lucetius*, *Pluvius*.³ These all attribute to Jupiter a quality as an actor. For instance, *Feretrius* is defined by FESTUS⁴ *a ferendo, quod pacem ferre putaretur*; and even though we do not accept the definition as the most fundamental, we must agree that an actor is denoted. *Lucetius*, likewise, points to Jupiter as an active agent. « They called Jupiter Lucetius, because they believed him to be the cause of light ».⁵ Like FESTUS's derivation of *Feretrius* *a ferendo*, VARRO derives *Elicius* *ab eliciendo*. Note that both the verbal forms thus used in interpretation are gerunds, not gerundives, and are therefore active, not passive. To reiterate, Jupiter *Elicius* is the Elicitor, not the Elicited.

PLINY and LIVY both refer to the story of Tullus Hostilius and his death by lightning, and PLINY cites L. PISO as the source. PLINY tells us that Numa had summoned down lightning often, but that Tullus, imitating him « too little according to rite », was struck by the lightning. As opposed to this, LIVY does not say either that Numa drew down the lightning, or that Tullus was attempting to do so; all that he states is that Tullus was practicing secret rites begun by Numa in honor of Jupiter *Elicius*, and because he failed in ritual he was killed.

VARRO does not mention Numa in connection with Jupiter *Elicius*, but the context of the passage shows that he believed in the antiquity of the cult. For several paragraphs, VARRO has been collecting evidence on the meaning of the word *inlicium*.⁶ He quotes from the *Tabulae Censoriae* and from the *Commentarii Consulares* where the word *inlicium* is an ancient equivalent for *contio*,⁷ and then goes on to draw other parallels, quoting from the tragedy *Proserpina* and from the *Hermiona* of PACUVIUS, and adds « thus an altar of Jupiter *Elicius* on the Aventine, from eliciting ».⁸ It seems to me that we are justified

¹ PLUT., *Numa*, 15, 4: *καὶ τὸν ἐπὶ τοῖς κεραννοῖς ἐκδιδάξει καθαρμόν, ὃς ποιεῖται μέχρι νῦν διὰ κρομμύων καὶ τριχῶν καὶ μαινίδων.*

² *Elicius* is defined in FORCELLINI, *Totius Latinitatis Lex.*, S.V., as follows: *Elicius. Verbale ab elicio, adhibitum fere tanquam cognomen Iovis, ita dicti quod eum caelo Numae rogatu Picus et Faunus quadam die elicere, ut doceret ritum piandi fulminis.* In the same work: *Elicio. Verbum transitiv. ab e et lacio. Elicio proprie est educo, extraho.... Speciatim (II) elicio est etiam verbum magicum, cum Manes aut Deos certa prece, certoque ritu sacri evocabant, exciebantque, consulendi causa de re arcana, aut veneficii faciendi. Elicere fulmina est precibus et sacris quibusdam impetrare, ut caelo decidant.*

WALDE does not define *elicius* in either the first or

second edition of his *Lateinisches Etymologisches Wörterbuch*; the 3d. ed. has not reached this word (May 1931).

FESTUS, 66 L. gives as a synonym for *electabo* the form *eliciam*. In LEWIS and SHORT, *A New Latin Dictionary*, *electo* is defined as a Plautine word, a frequentative of *elicio*, meaning to get out artfully, to worm out a secret.

³ This list is taken from the index to WISSOWA, *Religion und Kultus der Römer*, 2. Aufl., München, 1912.

⁴ FESTUS, 81 L.

⁵ FESTUS, 102 L.

⁶ VARRO, *L. L.*, vi, 86-94.

⁷ Cf. FESTUS, 100, 101 L: *inlicium, inlicivum*.

⁸ VARRO, *L. L.*, vi, 94: *sic Elicii Iovis ara in Aventino ab eliciendo.*

in concluding that VARRO, dealing with ancient sources, puts the origin of the term *Elicius* and the cult of the god in the past.¹ Returning to his subject, *inlicium*, his next words are *hoc nunc aliter fit atque olim*, and he explains the changes in procedure.

To summarize this evidence: there was a god Jupiter Elicius to whom an altar was dedicated on the Aventine. The purpose of the god, however, is not at all clear. He appears as a god of the lightning in PLINY; as a god of lightning expiation in OVID; perhaps as a god of lightning expiation and interpretation in LIVY. Two questions occur: can the name *Jupiter Elicius* be interpreted as a god of lightning; was the science of lightning expiation and interpretation native to the Romans or an introduction from Etruria?

The primitive Roman farmer or shepherd must have observed the lightning and have had a natural amount of respect for it. One of the earliest cult titles of Jupiter which tradition gives us is that of *Feretrius*,² Jupiter the Smiter, a recognition of the vivid impression of the lightning.³ There are some customs in Roman life which must date back to an early sense of awe for lightning: a place struck by lightning was considered *religiosus*;⁴ the lightning itself was buried;⁵ a tree struck by lightning was called *fanatica*;⁶ a special offering must be made in expiation;⁷ the body of a man killed by lightning must be treated in a special manner,⁸ or left untouched.⁹ These customs are the natural reactions of simple people: lightning does harm to something, which must thereafter be avoided.

There seems, however, to be no trace in strictly Roman belief of an effort to interpret lightning or to expiate it by elaborate methods. That was the contribution of Etruscan religion. The science of divination, native to the Romans, was augury, the interpretation of omens particularly by birds.¹⁰ This was an interpretation not for what the future portended but to discover the will of the gods for the present.¹¹ Although FESTUS lists first signs from heaven,¹² i. e., thunder and lightning,¹³ as observed by the augurs, we have no

¹ There is no verb in the sentence to show whether the altar was still in existence in Varro's own time.

² LIVY, i, 10, 6; DION. HAL., ii, 34, 4; cf. FESTUS, 82 L.: *fulgere prisci pro ferire dicebant, unde fulgur dictum est*.

³ In historical times, however, Jupiter Feretrius was not regarded as a god of lightning, but as the god to whom were specially dedicated the *spolia opima*. FESTUS, 202, 204 L.; SERV., *Aen.*, vi, 859.

⁴ FESTUS, 82 L.: *fulguritum*.

⁵ JUV., vi, 587: *atque aliquis senior qui publica fulgura condit*; C.I.L., xiv, suppl., 4294 (with references), 4536.

The burial of lightning seems from the evidence to be possibly an Etruscan rite, rather than an original Roman one. The scholia to PERSIUS, ii, 26 speak of the custom of bringing augurs and haruspices from Etruria to bury the lightning. Cf. LUCAN, i, 584-587, 606-609; GELL., *N.A.*, iv, 5, 2. But these accounts are in later authors, who may be reflecting the practice of their own day.

⁶ FESTUS, 82 L.: *fanatica*.

⁷ Made by *strufertarii*. See FESTUS, 376, 377 L.:

strufertarios, serufertarios; id., 75 L.: ferctum.

⁸ PLINY, *N. H.*, ii, 145.

⁹ FESTUS, 190 L.: *occisum*; QUIN., *Decl.*, 274. For a special case, where a man was struck in *Circo* where he could not be buried, see FESTUS, 370 L.: *statua*.

¹⁰ LIVY, i, 36, 3: *id quia inaugurato Romulus fecerat, negare Attus Navius, inclitus ea tempestate augur, neque mutari neque novum constitui, nisi aves addixissent, posse*. *Ib.*, i, 36, 6: *auguriis certe sacerdotioque augurum tantus honos accessit, ut nihil belli domique postea nisi auspicato gereretur, concilia populi, exercitus vocati, summa rerum, ubi aves non admississent, dirimerentur*. Cf. WARDE FOWLER, *Rel. Exper.*, 302-304.

¹¹ MARQUARDT, *Röm. Staatsverw.*, iii, 2. Aufl., Leipzig, 1885, 397.

¹² FESTUS, 317 L.: *quinque genera signorum observant augures: ex caelo, ex avibus, ex tripudis, ex quadripedibus, ex diris*.

¹³ FESTUS, 56 L.: *caelestia auguria vocant, cum fulminat (aut) tonat*.

reason to suppose that the observation of thunder and lightning was an original Roman form. The weight of evidence emphasizes the belief of the Romans in the superiority of the Etruscans in knowledge of lightning, and in Rome's dependence on them.¹

They looked to the Etruscan haruspices for information as to the proper expiation and «procuration» of all portents.² The Etruscan haruspices were skilled especially in three types of divination, *exta*, *fulgura*, *portenta*,³ against which is contrasted the preeminently Roman type, augury.⁴

SENECA in his *Naturales Quaestiones* devotes a whole book to a discussion of lightning. He writes from the point of view of a philosopher, but there are occasional moments when he forgets the teachings of the Greeks and mentions facts about Italy. «Lightning foretells the future in signs clearer than if written. There is this difference between us and the Tuscans, who have the greatest skill in dealing with lightning.... These beliefs are common to the Etruscans and to the philosophers. In this point they disagree, for the Etruscans say the lightnings are sent by Jupiter and they assign to them three types.... In these matters.... antiquity is wrong. For what is so foolish as to believe that Jupiter sends the lightning from the clouds?....»⁵ I have quoted this passage to show that by «antiquity» SENECA does not mean the Romans, but has in mind particularly the Etruscans.

The Etruscans had evolved an elaborate system of expiating the appearance of lightning, based on their sixteenfold division of the *templum* of the sky,⁶ and on their belief that there were nine gods who hurled the lightning.⁷ Did the Etruscans likewise believe in the evocation of lightning? The point is enigmatical,⁸ but bears on the interpretation of *Jupiter Elicius*. The only evidence that exists of such a power in Etruria in ancient times is PLINY'S report of an ancient myth, when Porsena had summoned lightning to kill the

¹ CIC., *de Div.*, i, 35; i, 92; ii, 80; DION. HAL., ix, 6; LUCAN, i, 584-587, 606-609; SEN., *Nat. Quaest.*, ii, 32; DIODOR., v, 40, 2; GELL., *N.A.*, iv, 5, 2. The statement in DION., *Hal.*, ii, 5 seems to contradict these passages: «The Romans believe that lightning going from left to right is favorable, either because they take it from the Etruscans or because it was the instruction of their fathers.... and as certain authors report, in the early times before the science of the Etruscans, the ancestors of the Romans considered lightning appearing on the left as favorable.» But Dionysius is none too certain of his authorities here: he gives a choice of reasons for the belief in favorable direction, and for the ancient Roman origin he uses *ὡς δὲ τινες ἰστοροῦσιν* to explain a cult of lightning which was usually assigned to the Etruscans. OVID also indicates that lightning was accepted as an augury in Romulus' time, but there are many anachronisms in OVID: *Fasti*, iv, 833-835.

² CIC., *de Harusp. Resp.*, 18: *ego vero primum habeo auctores ac magistros religionum colendarum maiores nostros,*

quorum mihi tanta fuisse sapientia videtur ut satis superque prudentes sint qui illorum prudentiam, non dicam assequi, sed quanta fuerit perspicere possint; qui stas sollempnisque caerimonias pontificatu, rerum bene gerundarum auctoritates augurio, fatorum veteres praedictiones Apollinis vatium libris, portentorum expiationes Etruscorum disciplina contineri putaverunt. LIVY, v, 15, 1; COLUMELLA, x, 339-341; TAC., *Ann.*, xi, 15.

³ CIC., *de Div.*, i, 35.

⁴ *Op. cit.*, i, 72. Cf. also CIC., *de Nat. Deor.*, ii, 11, where a distinction is made between a Roman augur and *Tusci et barbari*. Cf. C. O. THULIN, *Die Etruskische Disciplin*, i (1906), 13-128.

⁵ SEN., *Nat. Quaest.*, ii, 32, 41, 42.

⁶ CIC., *de Div.*, ii, 42.

⁷ SERV., *Aen.*, i, 42; PLINY, *N.H.*, ii, 138; cf. K. O. MÜLLER, *Die Etrusker, neu bearb. von W. DEECKE*, Stuttgart, 1877, ii, 86; G. FOUGÈRES, in DAREMBERG-SAGLIO, *Dict. des Antiq.*, «Fulmen».

⁸ MÜLLER, *op. cit.*, ii, 176 f.

monster Volta at Volsinii.¹ Etruscan haruspices in the late Empire, however, claimed the power to evoke lightning.² In both the legendary and priestly use, moreover, there had been a definite purpose: to kill a monster or to confound the enemy. But there is no motive assigned for the evocation of lightning in Rome. We have seen that the Romans recognized lightning as a phenomenon, but one certainly to be feared and not to be summoned. In the same passage with the report of the myth of the evocation of lightning by Porsena in Etruria, PLINY mentions the evocation as practiced by Numa and Tullus Hostilius, but no explanation nor reason for their so doing is given. PLINY refers again to the evocation of lightning in Rome, without reference to the practice in Etruria, but says specifically that of all the strange convictions of our ancestors, this is the most difficult to believe.³ He then quotes the story from L. PISO about the death of Tullus Hostilius. SERVIUS too mentions the evocation of lightning,⁴ as introduced by Prometheus and followed by Numa and Tullus Hostilius. PLINY hints at a connection with Jupiter Elicius, but SERVIUS does not mention the god. It seem to me that there is in these authors a confusion with a possible practice in ancient Etruria, a practice only legendary, or with a Greek myth, and a wish to ascribe equally mysterious powers to the kings of Rome. PLINY himself puts no credence in the legend, an indication that there was no belief in his own day in the evocation of lightning. On the ground that there is no evidence for an original Roman belief in the evocation of lightning, apart from Etruscan or Greek myths, there seems to be no basis for a theory that Jupiter Elicius was the cult name for a god evoked from the sky in the guise of lightning.

Was he the god of lightning expiation and interpretation? The ancient authors seem to agree that Jupiter Elicius was a god of dim antiquity. But the weight of evidence is that the science of lightning interpretation was Etruscan, not Roman, and that the Romans either derived their information from the Etruscans or employed Etruscan haruspices. Therefore Jupiter Elicius is not the god who guides the expiation or interpretation of lightning.

Was he the god of lightning? Several cult names of a god of lightning existed in Rome, *Jupiter Feretrius*,⁵ *Summanus*,⁶ *Jupiter Fulgor*,⁷ *Jupiter Fulgurator*,⁸ *Jupiter Fulmen*.⁹ These are obvious names. But *Elicius* means « the one who draws forth », which gives

¹ PLINY, *N.H.*, ii, 140. Our second important source for Etruscan lightning lore, SENECA, does not mention evocation.

² ZOSIM., *Hist.*, v, 41; SOZ., *Hist. Eccl.*, ix, 6.

³ PLINY, *N.H.*, xxviii, 13.

⁴ SERV., *Ecl.*, vi, 42.

⁵ J. B. CARTER, *The Religion of Numa*, London, 1906, 21; WISSOWA, *op. cit.*, 117, 119.

⁶ CIC., *de Div.*, i, 16; FESTUS, 254 L.: *provorsum fulgur*; 66 L.: *dium*.

⁷ FESTUS, *ibid.*; VITRUVIUS, *de Arch.*, i, 2, 5; *C.I.L.*, i²,

pp. 214, 242, 331.

⁸ *C.I.L.*, vi, 377.

⁹ FOUGÈRES, in his article « *Fulmen* » in DAREMBERG-SAGLIO, *Dict.*, considers that the origin of Jupiter Fulgor, Fulmen and Fulgora was Oriental, and these gods do not pertain to original Roman religion. However, P. PERDRIZET, s. v. « *Jupiter* » in DAREMBERG-SAGLIO, says the temple of Jupiter Fulgor in the Campus Martius was of great antiquity. It is possible that the temple might be ancient, but to a divinity of Etruscan origin.

no conception of the hurling of the lightning. Thunder and lightning were to be feared. No people would clothe them in a colorless name.¹

Several prominent scholars² in the field of Roman religion see in the cult of Jupiter Elicius no connection whatsoever with lightning. They link his worship with the ceremony of the *aquaelicium* and the *lapis manalis*, and believe that Jupiter Elicius was a rain god invoked in time of drought. Certainly there is a striking parallel in the terms *aquaelicium* and *elicus*.³

FESTUS gives two meanings to the *lapis manalis*,⁴ the second of which fits the theory here discussed. « They also called *manalis lapis* a certain stone which was outside the Porta Capena next to the temple of Mars. When they moved it into the city, on account of great drought, rain followed immediately and because it shed (*manare*) water, they called it *manalis lapis* ». He defines *aquaelicium*⁵ as occurring « when rain water is elicited by certain charms, as formerly, if one may trust the story, when the *manalis lapis* was carried into the city ». Quoting from VARRO, *de Vita Populi Romani*, lib. i, NONIUS⁶ defines *urceolum* as a ewer for water, *aquae manale*, whence *manalis lapis* is named in the rites of the pontiffs, the stone which is moved when rain is prayed for. SERVIUS,⁷ too, mentions the pontiffs in his explanation: « *lapis manalis* which the pontiffs used to draw, as often as there was drought ».

These references emphasize the antiquity of this rite. FESTUS says « as formerly » (*ut quondam*),⁸ and VARRO, quoted by NONIUS, refers the usage back to a great age (*apud antiquissimos*). The quotation from VARRO, however, is in the present tense, indicating

¹ Occasionally the Romans did not wish to name a god: cf. SERV., *Aen.*, ii, 351. Here the Romans wished to conceal the name of the patron god of Rome. Because they were uncertain of the cause of earthquake, they likewise did not name the god to whom the expiatory sacrifice was made: GELLIUS, *N.A.*, ii, 28. But no motive, either of protection or uncertainty, would lead them to conceal the name of a god of lightning.

² AUST, WISSOWA, CARTER, MERLIN, THULIN, and on second thoughts, WARDE FOWLER.

³ *Thesaurus Linguae Latinae: aquaelicium*, *ab aqua et lacio, -ere derivatum*. The derivation of *elicus* has not yet been published in the *Thesaurus*, but FORCELLINI derives it from *elicio*, a compound of *e* and *lacio*. WALDE does not define.

The effort to connect the two by identity of place is not successful. Jupiter Elicius had an altar on the Aventine: the *lapis manalis*, used in the *aquaelicium*, was kept outside the Porta Capena, and scholars who try to associate the Porta Capena with the Aventine forget that it could more easily be considered in the vicinity of the Caelian Hill or the Circus Maximus. The Porta Capena in historical times was considered in Region I and given no special relation to any hill.

⁴ FESTUS, 115 L.: *Manalem lapidem putabant esse ostium Orci, per quod animae inferorum ad superos manarent, qui dicuntur manes. Manalem vocabant lapidem etiam petram quandam, quae erat extra portam Capenam, iuxta aedem Martis, quam cum propter nimiam siccitatem in urbem pertraherent, insequeretur pluvia statim, eumque, quod aquas manaret, manalem lapidem dicere.*

⁵ FESTUS (PAULI *Excerpta*) 2 L.: *Aquaelicium dicitur, cum aqua pluvialis remediis quibusdam elicitur, ut quondam, si creditur, manali lapide in urbem ducto.*

⁶ NONIUS MARC., 547 M.: « *urceolum aquae manale vocamus, quod eo aqua in trulleum effundatur. unde manalis lapis appellatur in pontificalibus sacris, qui tunc movetur cum pluviae exoptantur: ita apud antiquissimos manale sacrum vocari quis non noverit? unde nomen illius* ».

⁷ SERV., *Aen.*, iii, 175: *MANABAT fluebat. hinc et lapis manalis quem trahebant pontifices, quotiens siccitas erat.*

⁸ SAMTER, s. v. « *Lapis manalis* », in PAULY-WISSOWA, *Real Encycl.*, suggests the possibility that the *quondam* was not used by VERRIUS FLACCUS, but is an interpolation by PAULUS. So also M. H. MORGAN, *Greek and Roman Rain-Gods and Rain-Charms*, in *Trans. and Proc. of A. P.A.*, xxxii, 1901, 103.

that the custom, however old, was still in existence in the last years of the Republic. There is no mention of any god worshipped, but the ceremony was under the guidance of the pontiffs.

In the time of the Empire, PETRONIUS recounts a ceremony formerly used to put an end to drought.¹ A guest at Trimalchio's dinner complains that «no one believes in heaven any longer, no one keeps the fast day, no one considers Jupiter as amounting to anything. Before this, matrons used to go with bare feet to the *Clivus* with hair dishevelled, with pure minds, and used to pray to Jupiter for rain. And so right away it rained pitchersful; either then or never; and they all used to laugh, although wet as mice».

Whether PETRONIUS intended to describe a ceremony at Rome or not is a disputed question.² Towns other than Rome had a *clivus*, just as they had a Capitolium and Forum. But whether at Rome or in Campania, the ceremony was evidently out of date at the time PETRONIUS was writing. He uses the imperfect tense, and specifically says *antea*. So it is rather strange to find reference to a rain ceremony, similar in many details, as existing years later. TERTULLIAN³ summarizes the attitude of the pagans in time of drought: «you offer *aquilia* to Jupiter, you announce *nudipedalia* to the populace, you beseech the sky on the Capitolium, you look for rain-clouds from the ceilings, wholly turned away from God himself and Heaven». In a later work he again gives details⁴: «when there is drought, *nudipetalia* are announced, the magistrates lay aside their purple, they reverse their *fasces*, they utter a prayer and sacrifice a victim». TERTULLIAN is apparently using terms which are familiar in his own day, referring to customs still in existence. The *nudipedalia* are reminiscent of the account in PETRONIUS, which treated the ceremony as of a former period. He also mentions the *aquilia*, which I see no reason to doubt as the plural of the *aquaelicium* defined by FESTUS. But there is no necessity for concluding that all the details of both ceremonies should be united and applied to the rite of moving the *lapis manalis* at Rome.⁵ Likewise there is no necessity for concluding that Jupiter Elicius is connected with the *aquaelicium* and the *lapis manalis*. The similarity of words is striking. But in no passage concerning *aquaelicium* or *lapis manalis* does the name of Jupiter Elicius occur.

¹ PETR., 44: *nemo enim caelum caelum putat, nemo ieiunium servat, nemo Iovem pili facit, sed omnes opertis oculis bona sua computant. antea stolatae ibant nudis pedibus in clivum, passis capillis, mentibus puris, et Iovem aquam exorabant. itaque statim urceatim plovebat: aut tunc aut nunquam; et omnes ridebant, udi tanquam mures.*

² MORGAN, *op. cit.*, 100 f. For the question of the date of Petronius see also, H. W. HAYLEY, *Quaest. Petron.*, in *Harv. Stud. in Class. Phil.*, ii, 1891, 1-23.

³ TERT., *Apol.*, 40: *Denique cum ab imbribus aestiva hiberna suspendunt et annus in cura est, vos quidem cotidie pasti statimque pransuri, balneis et cauponiis et lupanaribus operantibus, aquilia Iovi immolatis, nudipedalia populo denuntiatis, caelum apud Capitolium quaeritis, nubila de*

laquearibus exspectatis, aversi ab ipso et deo et caelo.

⁴ TERT., *de Ieiunio*, 16: *cum stupet caelum et aeternus annus, nudipedalia denuntiantur, magistratus purpuras ponunt, fasces retro avertunt, precem indignant, hostiam instaurant.*

⁵ Several of the articles in the handbooks link up all information under one rite. WISSOWA has written the article «*Manalis lapis*» in ROSCHER's, *Lexikon* and «*Aquaelicium*» in PAULY-WISSOWA, and AUST «*Elicius*» and «*Jupiter Elicius*», and this results in a biased opinion. Strangely enough, there are two articles in PAULY-WISSOWA, «*Lapis manalis*» by SAMTER, and «*Manalis lapis*» by KROLL, both opposed to WISSOWA and AUST.

FESTUS makes no mention of the god and has no definition of *Elicius*:¹ but he does define other epithets of Jupiter, such as *Feretrius*, *Gradivus*, *Hercius*, *Hippius*, *Lucetius*, and associates the *lapis silix* with Jupiter.² If the *lapis manalis* likewise had a connection with Jupiter, it seems odd that Verrius Flaccus should not have mentioned it, or if he had, that FESTUS should not have quoted information for both stones. I think it much more likely that VERRIUS FLACCUS knew of no relation of the *lapis manalis* to Jupiter Elicius.

The fact that a writer of the early Empire did not recognize an association between Jupiter Elicius and a very old rite does not, of course, destroy the possibility of an earlier connection. There seems to be no cult of Jupiter as a rain god, however, until a late period.³ APULEIUS lists titles of Jupiter as a weather god:⁴ *fulgurator et tonitrualis et fulminator, etiam imbricator et item dicitur serenator*. But these epithets seem rather to indicate the functions of Jupiter than to be cult titles, and APULEIUS does not mention the word *elicius*. No evidence appears that the primitive Roman approached Jupiter as a god of rain: in time of drought, when he needed water for his fields, he went to a place where water was. SERVIUS tells us that a sacrifice is made to the fountain of Juturna when there is a drought.⁵ M. H. MORGAN suggests the probability that "both Greeks and Romans were in the habit of praying to the divinities of the well-springs, fountains, and sources of streams, and of the streams themselves, rather than to Zeus or Jupiter or any other god for rain".⁶ The references regarding *aquaelicism* or use of the *lapis manalis* which go back to Republican or Augustan sources⁷ give no relation to any god: the ceremony was evidently what we call today "sympathetic magic", the summoning of rain by suggestion.

In addition to the absence of any positive worship of Jupiter as a rain god, the uncertainty of opinion on the association of the *aquaelicism* with the cult of Jupiter Elicius precludes the acceptance of this ingenious theory. WISSOWA,⁸ AUST,⁹ CARTER¹⁰ and MERLIN¹¹ accept the theory unreservedly. SAMTER,¹² just as unreservedly, rejects it.

WARDE FOWLER at first rejected the theory....: "the Jupiter Elicius with whom it is

¹ This is not a strong argument *per se*, for there are not many words beginning with *E* in Festus, and possibly some may have been lost.

² FESTUS, 81 L.: *Feretrius Juppiter dictus a ferendo, quod pacem ferre putaretur; ex cuius templo sumebant sceptrum, per quod iurarent, et lapidem silicem, quo foedus ferirent*. *Id.*, 102 L.: *lapidem silicem tenebant iuraturi per Iovem*.

³ The epithet *pluvius* does not occur in inscriptions: in *C.I.L.*, ix, 324, from Canusium, *Iovi pluvia[is]* is now read. See further M. H. MORGAN, *op. cit.*

⁴ APUL., *de Mundo*, xxxvii, 371. The passage continues: *et plures eum frugiferum vocant, multi urbis custodem, alii hospitalem, amicalem et omnium officiorum nominibus appellant*.

⁵ SERVIUS, *Aen.*, xii, 139: *huic fonti propter aquarum inopiam sacrificari solet*.

⁶ MORGAN, *op. cit.*, 108.

⁷ NONIUS based on VARRO: FESTUS based on VERRIUS FLACCUS.

⁸ *Rel. u. Kult*², 121; "Aquaelicism", in PAULY-WISSOWA; "Lapis manalis", in ROSCHER'S *Lexikon*.

⁹ *Die Religion der Römer*, Münster, 1899, 120; "Elicius", in PAULY-WISSOWA; "Jupiter Elicius", in ROSCHER'S *Lexikon*, ii, i, 656-658.

¹⁰ *De Deorum Romanorum Cognominibus Quaestiones Selectae*, Lipsiae, 1898, "Elicius Juppiter". For some reason, Carter does not include *Elicius* in his *Epitheta Deorum Quae apud Poetas Latinos leguntur*, Lipsiae, 1902, although he quotes from OVID.

¹¹ *L'Aventin dans l'Antiquité*, Paris, 1906, 46.

¹² "Lapis manalis", in PAULY-WISSOWA: "Altröm. Regenzauber", in *Archiv. f. Rel.*, xxi, 1922, 317-339.

sought to connect this one [*i. e.*, rain spell, *aquaelicium*] was always associated by the Romans not with this obsolete rite, but with the elaborated science of augury which was in the main Etruscan ». ¹

In his *Religious Experience of the Roman People*, however, WARDE FOWLER came to accept the theory. « The Jupiter Elicius of the Aventine had nothing to do with lightning : he took his cult title from the rite of *aquaelicium* : but as soon as the Romans began to interest themselves in the Etruscan lightning-lore.... they perverted the meaning of the epithet to suit their new studies ». ²

The article on Jupiter by PERDRIZET in DAREMBERG et SAGLIO identifies Jupiter Elicius with the *aquaelicium* as a rain god, but the account under « *Aquaelicium* » makes two distinct rituals, one to Jupiter, without assigning any epithet, based on FESTUS, TERTULLIAN and PETRONIUS, and a second to Mars, associated with *lapis manalis*, based on FESTUS, SERVIUS and NONIUS. In sympathy with this second point of view is an article by HOFFMANN, « *Das Aquilicium* ». ³ Because the *lapis manalis* was next to the shrine of Mars, the stone is sacred to him and has no connection with Jupiter Elicius. *Lapis manalis* is derived from the *Manes* and has to do with reconciliation of the spirits of the dead. Hoffmann bases his argument on the first definition of FESTUS : « they thought the *lapis manalis* was the mouth of Orcus, through which the spirits of the lower world, called *manes*, slipped to the gods of the upper world ». ⁴

The difficulty of deciding which theory fits Jupiter Elicius is illustrated by statements in the commentaries on the passage in OVID'S *Fasti*. FRAZER says, « However, the adjective Elicius perhaps refers rather to the rain than to the lightning that was to be elicited from the clouds ». ⁵ CYRIL BAILEY gives a similar impartial view : « The ancient authorities connected this title with the practice of Etruscan augurs of 'eliciting' the thunderbolt, and Ovid seems to lean to this view in connecting the legendary origin of the title so closely with the thunderbolt.... But the idea seems to be foreign to genuine Roman religious notions, and it is more probable that we should look for an explanation to the very old rite of the *aquaelicium*, used in time of great drought to procure rain.... It must, however, be remembered that Jupiter Elicius is never actually mentioned in connection with the *aquaelicium* ». ⁶

The evidence against Jupiter Elicius being a god associated with lightning has been given above, pages 90-93, while the difficulty in considering him a god of rain ⁷ was treated on pages 93-96.

¹ WARDE FOWLER, *Roman Festivals of the Republic*, London 1908, 233.

² WARDE FOWLER, *Rel. Exp.*, 52.

³ *Rhein. Mus.*, L, 1895, 484-486.

⁴ FESTUS, 115 L.

⁵ OVID, *Fastorum libri sex*, ed. by J. G. FRAZER, London, 1929, iii, 91, on *Fasti*, iii, 327. In *The Golden Bough*, 3d. ed., ii, London 1911, 183, FRAZER mentions

Jupiter Elicius as the god who elicits the flashing lightning and the rain.

⁶ OVID, *Fastorum lib. iii*, ed. by C. BAILEY, Oxford, 1921, 106 f.

⁷ MÜLLER, *Die Etrusker*, ii, 317-319, does not even accept the *aquaelicium* as Roman, but says it was practiced in Rome by Etruscans, and was a superstitious belief.

If these current interpretations of *Elicius* may be considered eliminated,¹ it is now permissible to propose a substitute.

The name *Elicius* means « Caller-forth », « Elicitor », « Summoner ». What was the object which Jupiter drew forth and gave to the Roman people? If we examine the context of the passages which mention Jupiter Elicius we are struck by the emphasis on religious ritual.

LIVY assigns to Numa the interest in religious observance which has become almost synonymous with his name, and we read :² « He then turned his attention to the appointing of priests.... a flamen for Jupiter.... one for Mars, another for Quirinus.... he chose maidens for Vesta.... likewise twelve Salii for Mars Gradivus.... Then he appointed a pontifex.... To him he intrusted all the rites of worship, written out and recorded with what victims, on what days, at what temples sacrifices should be made and from what sources money should be demanded for these expenses. And all other public and private sacrifices he also made subject to the decrees of the pontifex, that there might be some one to whom the plebs could come for advice, lest, by neglecting the rites of the fathers and adopting foreign ones, there might be any disturbance of the religious law, and in order that the pontifex might likewise teach not only ceremonies for the gods in heaven, but also proper funeral rites and means of placating the spirits of the dead, and that he might teach what prodigies sent by lightning or some other appearance were to be considered and guarded against. To elicit these matters from the minds of the gods, Numa dedicated an altar on the Aventine to Jupiter Elicius, and consulted the god by augury to determine which should be undertaken ». *Pontificem deinde.... legit, eique sacra omnia exscripta exsignataque attribuit.... Cetera quoque omnia publica privataque sacra pontificis scitis subiecit, ut esset quo consultum plebes veniret, ne quid divini iuris negligendo patrios ritus peregrinosque adsciscendo turbaretur; nec caelestes modo caerimonias, sed iusta quoque funebria placandosque manes ut idem pontifex edoceret, quaeque prodigia fulminibus aliove quo visu missa susciperentur atque curarentur. Ad ea elicienda ex mentibus divinis Iovi Elicio aram in Aventino dicavit deumque consuluit auguris, quae suscipienda essent.*

¹ There is still another explanation of the meaning of Elicius. The account in PLUTARCH gives a hint (*Numa*, 15). Jupiter had been very angry at being summoned down to earth, but after the amusing conversation with Numa, returns to heaven *gracious*, *ἡλεως*. This term is used to explain the statement that thereafter the place was called *ἡλιον*. But a Greek word with a smooth breathing is not derived from one with a rough breathing. It is quite evident that PLUTARCH is reproducing in Greek a Latin term. He does not make it masculine, however, or ascribe it to Jupiter, but to the place, that is, the Aventine. If we transliterate into Latin, we have *ilicium*. This might be related to *iliceus*, « belonging to the ilex tree », and at first this seemed to me to be a cult title for Jupiter which dated far back. Then a series of

articles by A. B. COOK were found in *Class. Rev.*, xvii, xviii, 1903, 1904. He had seized with triumph on this interpretation as upholding his theory of the Oak God. After cautiously stating that PLUTARCH'S *ἡλιον* might presuppose a title *Illicius* as well as *Elicius* (*Class. Rev.*, xvii, 1903, 270) he stated in a following article that *Elicius* is also spelt *Illicius* (*Class. Rev.*, xviii, 365).

I now believe that PLUTARCH made use of the passage in VARRO, *L.L.*, vi, 94 f., where, in the middle of an explanation of *inlicium*, VARRO quite unexpectedly introduces the name Jupiter Elicius. VARRO himself probably spelt the word *illicium*. PLUTARCH confused the Latin terms, and instead of using *Elicius* as applied to Jupiter, used *illicium* as applied to the place, the Aventine Hill.

² LIVY, i, 20.

Numa is concerned that the pontifex, the head of the new state priesthoods just organized, should make clear to the Romans what their official conduct should be, not only in strictly religious matters, but in proper funeral services, in the appeasing of the Manes, and in the face of prodigies, appearing either by lightning or some other means. Note the words that precede *ad ea elicienda*. It is possible to interpret the neuter plural *ea* as referring only to *prodigia*, but even so that includes not only lightning but also other manifestations. However, why confine the *ea* to *prodigia*? Considering that the sentence reads *nec.... modo, sed.... quoque.... que*, it is much more reasonable to consider that LIVY has written an all-inclusive demonstrative. And I think this is further indicated by the conclusion of the sentence: Numa dedicated an altar on the Aventine to draw forth "these things" from the minds of the gods, and consulted the god by means of auguries to determine divine approval of what "things" were to be accepted. Here, then, we have one god, Jupiter Elicius, to act as intermediary between the gods (*divinis mentibus*) and men.

During the reign of Tullus Hostilius, the legendary king who follows Numa, there came a rain of stones on the Alban Mount,¹ accompanied by a voice apparently issuing from the mountain, advising the Albans to carry on their religious rites as their fathers had done, *patrio ritu*. The Romans made an expiation for this *prodigium*, and the *novendiale sacrum* remained the proper ritual for such a rain of stones.² But a pestilence followed and even the king fell ill. Then he made a complete change of front, and from a warlike king became the most superstitious and the most religious. The story was current that Tullus studied the books of Numa wherein he found certain secret sacrifices to Jupiter Elicius and busied himself in trying them out. But he got no results and was killed by lightning. Why? Because he was trying to draw down the lightning? Not at all. "The sacrifice was neither begun nor attended with due ritual, and not only did no appearance in the sky become manifest to him, but he was struck by the lightning of Jupiter, who was roused to wrath by the improper ceremony, and he was burned with his household". *sed non rite initum aut curatum id sacrum esse, nec solum nullam ei oblatam caelestium speciem sed ira Iovis sollicitati prava religione fulmine ictum cum domo conflagrasse*. There was a religious scruple involved here, and a very satisfactory retribution in the anger of Jupiter at the *prava religio* of the king, who had not carried out sacrifices with due ritual.

Previous to his account of the meeting of Jupiter Elicius and Numa, OVID summarizes the traditional function of Numa.³ "At first the Quirites were too ready to take up arms: Numa resolved to soften them by force of law and fear of gods. Hence laws were made...

¹ LIVY, i, 31.

² Cf. LIVY, xxx, 38, 9: *in Palatio lapidibus pluit. Id prodigium more patrio novendiali sacro, cetera hostiis*

maioribus expiata.

³ OVID, *Fasti*, iii, 277-282.

and rites handed down from the ancestors began to be piously observed. Savagery was put aside, justice was more powerful than arms, and it was a shameful thing to fight against a citizen ». This of course is a glorified picture, but the important element for our discussion is the phrase *tradita sacra*. There is emphasis on a traditional, accepted, not-to-be-changed system of ritual.

PLUTARCH also emphasizes this importance of permanent form.¹ « The chief of the Pontifices, the Pontifex Maximus, had the duty of expounding and interpreting the divine will, or rather of directing sacred rites, not only being in charge of public ceremonies, but also watching over private sacrifices and preventing any departure from established custom, as well as teaching whatever was requisite for the worship or propitiation of the gods ».

Because PLINY² uses the story of the death of Tullus Hostilius to illustrate the reported ancient belief in evoking lightning, he is usually cited to prove Jupiter Elicius as a god of lightning. But as in LIVY, the emphasis is on Tullus' failure to conform to proper ritual, and Jupiter's anger at the *imitatum parum rite*. We have here the idea of a god who is displeased at improper rite, because he has himself specified what he desired. I believe that *Elicius* is the epithet to indicate the « drawing forth » of rules, of religious practices which formed the « custom of the ancestors ».

Ancestral custom was a vivid feature of Roman religion. There was a sharp differentiation between the *ius divinum* and the *ius humanum*,³ and the basis of the *ius divinum* rested on the *mos maiorum*. The Romans placed enormous emphasis on proper rites and ritual. These rites were ancient, having been established as fundamental elements of the relation of a Roman to his gods. Witness LIVY's emphasis on the early establishment of ritual,⁴ and VIRGIL'S constant reference to formalism. CATO quotes the formulae before harvesting certain crops⁵ or thinning a wood, or digging, or lustrating the fields before plowing. The farmer must perform the sacrifice in the established way, *Romano more*, and there are provisions made if he fails. GELLIUS characterizes the Romans as *castissimi cautissimique* in establishing rites and in regard for the gods.⁶

The various types of set formulae and prayers are discussed by PLINY.⁷ The statement of GELLIUS that certain *comprecationes* are done in the Roman manner, *ritu Romano*,⁸ is significant, because it marks these as independent of Greek influence. The Roman em-

¹ PLUT., *Numa*, 9, 4 (Transl. by BERNARDOTTE PERRIN, *Loeb. Class. Libr.*).

² PLINY, *N.H.*, ii, 140.

³ SERV., *Georg.*, i, 269; GAIUS, ii, 2.

⁴ LIVY, i, 19-21; CIC., *de Div.*, ii, 148.

⁵ CATO, *de Agricult.*, 134, 139, 140, 141.

⁶ GELLIUS, *N.A.*, ii, 28, 2.

⁷ PLINY, *N.H.*, xxviii, 10-13. PLINY'S scientific reaction to these formulae is summarized by L. THORNDIKE,

A History of Magic, New York, 1923, i, 93 f.: « He gives many instances of belief in incantations from contemporary popular superstition, from Roman religion, and from the annals of history. He does not doubt that Romans in the past have believed in the power of words, and thinks that if we accept set forms of prayer and religious formulae, we must also admit the force of incantations. But he adds that the wisest individuals believe in neither ».

⁸ GELLIUS, *N.A.*, xiii, 23, 1.

phasis on formula was undoubtedly an outgrowth of magic. But it is very easy to understand how just this insistence on ordered method would appeal to the legal mind of the Roman.¹

The Roman respect for established ritual is preserved for us by Cicero. Recurring through his ideal code of religious law, we find :

« They shall preserve the rites of the family and the ancestors ».

« They shall perform the established rites ».

« They shall preserve the best of the ancestral rites ».

« The sacred rites of families shall remain forever ».²

Quintus Cicero remarks that Marcus' religious system does not differ much from the laws of Numa and Roman customs, to which Marcus rejoins that Rome's early state was the best in the world, and such suggestions as he has made which do not appear in the state would still be found in the customs of their ancestors.³ The exposition of his meaning is significant : to preserve the ritual of the family and ancestors is to guard the *religio*, the religious rites which have, as it were, been handed down from the gods themselves, since ancient times were closest to the gods.⁴

Roman tradition assigned the early organization of the state religion to Numa.⁵ But whence did he obtain his information and knowledge of ritual? We can imagine a conviction that the source of such information was divine, and not human, for we find the myth of Egeria, the goddess who advised and instructed Numa. ST. AUGUSTINE denies any divine origin for the laws of Rome,⁶ and particularly for those given by Numa, but by that very negation, indicates that there existed a belief in such a divine origin.⁷

To return to Cicero's explanation of preserving the ritual of the family and ancestors, we see that he hints at a heavenly origin. Before the state religion developed, the primitive Roman had already formed a concept of a source for his ritual. The idea of this source took shape and in the state religion was dignified by a definite epithet, *Elicius*, which was given to the chief divinity, Jupiter. The great body of religious ceremonial was so formal and so exacting that it seems natural for the Romans to imagine a special definition from the gods themselves as the basis of the *ius divinum*. Then as time passed, the ritual remained unchanged, but ideas of the gods were profoundly altered and new

¹ WARDE FOWLER, *Rel. Exp.*, 188: « That in this prayer [from the Iguvine Tables]... exactness of wording was believed to be essential, as in the ritual which preceded it exactness of performance, there is no doubt; for at the end of the whole document (VI. B. 48) we find that if there had been any slip in the ritual, the Brethren had to go back to the first gate and begin all over again. There is plainly present the idea, surviving from an age of magic, that the deities had strong feelings about the right way of invocation, and would not respond to the performance unless those feelings were understood and appealed to ».

² CIC., *de Leg.*, ii, 19-22.

³ *Ibid.*, ii, 23.

⁴ *Ibid.*, ii, 27: *iam ritus familiae patrumque servare id est, quoniam antiquitas proxime accedit ad deos, a dis quasi traditam religionem tueri.*

⁵ WISSOWA, *op. cit.*, 31.

⁶ AUGUSTINE, *de Civ. Dei*, ii, 16.

⁷ The natural human wish to have the gods give laws was exploited by Rhadamanthus and Minos in Crete and Lycurgus in Sparta, in the opinion of STRABO, x, 4, 8; 19. Cf. Moses and the Ten Commandments.

forms of worship introduced, while the origin of the traditional ritual was forgotten. The meaning of Jupiter Elicius likewise was forgotten, and writers of a later period had no clear conception of his function.

The Romans recognized the dim antiquity of the origins of their national religious practices. « Shall I swear by Jupiter Lapis according to the most ancient Roman rite? » asks APULEIUS.¹ « Those sacred rites are called *municipalia* which they have preserved from the very beginning before the establishment of the Roman state: the pontifices wished the people to observe these and to perform them in the same fashion that was customary from antiquity ». ² « Custom is the institution of the fathers: that is, the tradition of the ancients concerned especially with rites and ceremonies of the past ». ³ There was comprehension of the period before the establishment of the state, as is illustrated by the phrase *ante civitatem Romanam acceptam* in the passage from FESTUS. The Romans recognized that the life of this period was agricultural and pastoral. « That augural science of Romulus was pastoral, not urban, nor was it fashioned according to the opinions of the ignorant, but it was received by chosen men and handed down to posterity ». ⁴

Just as they assigned the organization of the state religion to Numa, the Romans ascribed the first steps of worship to Faunus.⁵ « He was the first to make sacred to chosen *numina* places and buildings and groves. But he himself is believed to have been received into the number of the gods, and so his oracle is in Albunea. However, there are thought to be a number of Fauns, actually present too. At least that is the belief of the rustic people who dwell in that part of Italy which is *suburbana*, that they are often seen in the fields ». There had been ancient beliefs, which still persisted among the country people. The city Roman had forgotten them, but his ancestors had held the same beliefs. This trace of a primitive rustic religion may explain the position of the altar dedicated to Jupiter Elicius. The Aventine Hill was outside the *pomerium* until the time of Claudius,⁶ that is, it was excluded by the religious barrier from an active share in the civil life. Therefore, it has been difficult to explain why there should be a cult of Jupiter on that hill, which was chiefly devoted to foreign deities. Originally the Aventine Hill was an agricultural centre. There is a tradition of rustic deities, of the worship there of Bona Dea, Picus and Faunus, Fons, Ceres, Consus and Laverna.⁷ The very name of the hill indicates an agricultural life: it has been given an eponymous hero, Aventinus, variously considered a king of the Albans or of the Aborigines, that is, of the original rustic stock; or the name is

¹ APUL., *de Deo Socr.*, v, 132: *iurabo per Iovem lapidem Romano vetustissimo ritu?* Cf. GELLIUS, *N.A.*, xiii, 23, 1 f.

² FESTUS, 146 L.: *municipalia sacra vocantur, quae ab initio habuerunt ante civitatem Romanam acceptam; quae observare eos voluerunt pontifices, et eo more facere, quo adsuessent antiquitus.*

³ FESTUS, 146 L.: *mos est (institutum pa)trium:*

id est memoria veterum pertinens maxime ad religiones (caerim)oniasque antiquorum.

⁴ CIC., *de Div.*, i, 107: *Atque ille Romuli auguratus pastoralis non urbanus fuit, nec fictus ad opiniones imperitorum sed a certis acceptus et posteris traditus.*

⁵ PROBUS, *ad Verg. Georg.*, i, 10.

⁶ GELLIUS, *N.A.*, xiii, 14; cf. MERLIN, *op. cit.*, 53.

⁷ MERLIN, *op. cit.*, pt. I, ch. iii.

derived *ab avibus*, from the birds which came from the Tiber,¹ attracted by the woods. The early groping toward a spirit to sanction forms and ritual, to explain and make clear the methods of worship gave rise to a *numen* of this function, who was worshipped on the Aventine, by an agricultural and pastoral community. This *numen* was recognized in the state religion by the name and epithet, *Jupiter Elicius*. The ritual and ceremonies were accepted, but the origin of rites was no longer vital, and Jupiter « Elicius » became obscure. We cannot possibly determine all the reasons for the location of the cult on the Aventine, but the grove of Egeria was not far distant, and its location may have been, in part at least, responsible for the preference for this hill.

Jupiter Elicius apparently was a god who had no vital share in the religion of the Roman state. He is mentioned only infrequently, and then with an uncertain reference to being drawn forth, or drawing forth lightning, or drawing forth information for lightning expiation. There is emphasis on the etymological association of his name and function, and I believe that the real explanation of his function is given by LIVY, who ascribes to him the drawing forth of rules and ritual from the gods. The primitive Roman had imagined a divine origin for the rites and ritual with which he must worship all the *numina* of his religion. The developed Roman state accepted the rites and ritual, but forgot the *numen* who was regarded as having formulated them. Jupiter Elicius is the god through whom man could « draw forth » from heaven knowledge of his all-important ritual. Jupiter Elicius is an intermediary between man and all the other gods, whose conflicting wishes rendered this service of supreme importance, especially at the beginning of Roman religion, that is, in the days of the organization of ritual, or in the period of Numa. That the connotation of the epithet later was obscured, when ritual had become fully established, is not in the least surprising.

¹ VARRO, *L. L.*, v, 43; FESTUS, 17 L.; SERV., *Aen.*, vii, 657.

GREEK VASES IN THE MUSEUM OF THE AMERICAN ACADEMY IN ROME.

A. M. HARMON AND ESTHER V. HANSEN.

(PLATES 21-29).

INTRODUCTION.

THE catalogue here presented includes the pre-classical and classical Greek vases and the Italic vases directly derived from the Greek in the Museum of the American Academy in Rome. It forms part of the project for the complete publication of the Academy's archaeological material, in accordance with which there have already appeared MR. HOWARD COMFORT'S catalogue of the *terra sigillata* (*Mem. Amer. Acad. in Rome*, vii, 1929, 177-219) and DR. RAYMOND T. OHL'S catalogue of the inscriptions on stone (*Mem. Amer. Acad. in Rome*, ix, 1931, 89-133).

A manuscript catalogue of all the antiquities in the Museum of the American School of Classical Studies in Rome was made in 1905-1907 by MR. A. M. HARMON, at that time Fellow in the School and now Professor in Yale University. Concerning the history of the collection up to that time MR. HARMON wrote as follows: « The museum of the American School in Rome is composed in the main of objects drawn from two sources: the small collection of vases and terracottas given to the school in the year 1898-1899 by Dr. Edmonston Charles of England (NORTON, Report in *A.J.A.*, 1900, Suppl., p. 42) and the larger collection gradually accumulated and deposited as a loan in the school by Mr. Norton. It is to the latter that the museum owes its beginning, but there were only a few objects collected when Dr. Charles' gift was made. Unfortunately it is not possible to determine the exact extent of this gift, for no inventory of it is extant. There are only two documents at hand, both letters, dated June 3 and 19, 1889, to Dr. Charles from a friend who [began] the collection for him at Viterbo (purchased from Sig. Bazzichelli) and at Orvieto (purchased from Sig. Mancini). The amount of material from both places seems to have been about the same.... It is possible, however, to complete the list somewhat, for a number of the vases in the museum bear written labels which are due to Mancini, as is stated in one of the letters. These permit the objects bearing them to be assigned to the Charles Collection and to Orvieto....

« Mr. Norton's additions to the museum have been in part purchased from time to time in Rome, and in part the result of different expeditions.... In addition, the cruise to Asia Minor and among the Greek Islands made in 1904 by Mr. A. V. Armour and Mr. Norton yielded the museum a number of excellent specimens of Cycladic, Mycenaean, and Cypriote vases and small objects.... ».

The Pre-Mycenaean fragments from Dhimini in Thessaly were collected by Dr. A. W. Van Buren on the site called Tumba in 1905 and presented to the museum. Among his gifts are also included some of the fragments from Knossos, several fragments of Mycenaean Third Style, and a number of Proto-Corinthian and Italo-Corinthian vases.

In the twenty-five years which have elapsed since MR. HARMON'S catalogue was prepared, the union of the American School of Classical Studies in Rome with the American Academy in Rome in the year 1913 brought about the absorption of the School's collection in the Museum of the Academy, and during those years considerable additions were made both to the museum in general and to the vases in particular. Of the Greek vases in the museum numbers 212-264, 300-324, and 504-508 were catalogued by Mr. Harmon; numbers 531-579 have been added later.¹ With the system established in MYRES' *Handbook of the Cesnola Collection* it has been possible to classify more exactly the vases from Cyprus; the same is true of the fragments from Dhimini, which are now catalogued according to the system of classification in WACE and THOMPSON'S *Prehistoric Thessaly*. The volumes of the *Corpus Vasorum Antiquorum* have also offered many new parallels. Finally, the timely arrival of PAYNE'S *Necrocorinthia* has made it possible to adopt the nomenclature therein established in regard to some of the Corinthian ware.

A word of appreciation is due to Mr. R. Davico, of the Academy's staff, for the plates which illustrate the catalogue.

ABBREVIATIONS.

ALBIZZATI = ALBIZZATI, *Vasi del Vaticano*.

A.J.A. = *American Journal of Archaeology*.

Ann. d. Ist. = *Annali dell'Istituto di corrispondenza archeologica*.

Arch. = *Archaeologia*.

'Αρχ. Εφ. = 'Αρχαιολογική Ἐφημερίς.

BÖHLAU = BÖHLAU, *Aus Ionischen u. Italischen Nekropolen*, Leipzig, 1898.

C.V.A. = *Corpus Vasorum Antiquorum*.

Br. Mus. = *British Museum*.

Brux. Cinqu. = *Bruxelles, Musées du Cinquantenaire*.

Copenh. Mus. Nat. = *Copenhagen, Musée National*.

D. C. = DUMONT ET CHAPLAIN, *Les Céramiques de la Grèce propre*, Paris, 1888.

¹To make the catalogue practicable in the Museum the system of numbering already used for the vases has been retained. The following numbers do not appear

in the catalogue: 229, withdrawn by Mr. Norton; 231, 8, lost; 570, Italic ware.

- EVANS = EVANS, *Palace of Minos*, i, London, 1921.
 HALL = HALL, E. H., *Decorative Art in Crete in the Bronze Age*, Philadelphia, 1907.
 J.H.S. = *Journal of Hellenic Studies*.
 JOHANSEN = JOHANSEN, *Les vases sicyoniens*, Paris and Copenhagen, 1923.
 Mon. Ant. = *Monumenti antichi pubblicati per cura della R. Accademia dei Lincei*.
 MONTELIUS = MONTELIUS, *La civilisation primitive en Italie*, Stockholm, 1895, 1910.
 Myk. Vasen = FURTWÄNGLER UND LÖSCHCKE, *Mykenische Vasen*, Berlin, 1886.
 MYRES = MYRES, J. L., *Handbook of the Cesnola Collection of Antiquities from Cyprus*, New York, 1914.
 Not. Scav. = *Notizie degli Scavi di Antichità*.
 O. R. = OHNEFALSCH-RICHTER, *Kypros*, London, 1893.
 PAYNE = PAYNE, *Necrocorinthia*, Oxford, 1931.
 Phylakopi = *Excavations of the British School at Phylakopi (J.H.S., Suppl. iv, 1904)*.
 Röm. Mitt. = *Mitteilungen d. k. d. Archäol. Instituts, Röm. Abt.*
 Thera = HILLER VON GÄRTRINGEN, *Thera*, Berlin, 1899-1909.
 TSOUNTAS = TSOUNTAS, *Αἱ προϊστορικαὶ ἀκροπόλεις Διμηνίου καὶ Σέσκλον*, Athens, 1908.
 V.B.A. = FURTWÄNGLER, *Beschreibung d. Vasensammlung im Antiquarium*, Berlin, 1885.
 W. T. = WACE AND THOMPSON, *Prehistoric Thessaly*, Cambridge, 1912.

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DESCRIPTION OF VASES.

POTTERY OF CYPRUS.

212. Jug. (Pl. 21.) Body pear-shaped, without base. Neck flares slightly and terminates in an oblique spout, the tip of which is notched by a semicircular cut, to form two horns. Round handle, of slightly elliptical section, from body to base of spout, has four transverse grooves across upper end. Ht. 0.12; diam. 0.062. Clay yellow-red, red slip, burned grey-black on bottom and on one side. Prov. Larnaca. Cf. *C.V.A. Br. Mus.* II C a, pl. 3, no. 11; *Arch.*, xlv, 1877, pl. 9, no. 8.
213. Flask. (Pl. 21.) Long elliptical flattened body, ending at base in rough flattening. Short cylindrical neck with slightly flaring mouth. On the shoulder (long axis) immediately below the neck is a small bow handle on one side, and, on the other, a cylindrical spout, smaller than the neck. Ht. 0.21; cross-section, 0.085 \times 0.062; mouth, 0.027; spout, 0.014. Clay yellow-red, rough red slip. Incised decoration made by a three-pronged fork, giving a band of three parallel lines, with a slightly greater interval between the middle and the upper than between the middle and the lower. Three vertical parallel lines on the back of the handle, on the side of the neck towards the handle, and on the upper side of the spout. On the other side of the neck the three parallel lines are slightly waved, as they are also on the under side of the spout, where they run down to a point just below the greatest diameter. Beginning at the end of this, a direct band of the three parallel lines runs twice around vessel in an ascending spiral from right to left, ending just below spout. A second spiral begins just above the beginning of first and runs once around, filling

space between coils of first. Above these systems a wavy band begins where the two spirals end, and runs once around, interrupted by handle juncture and ending at juncture of spout. Above this another plain spiral once around, and to fill surplus space above it an extra straight band on one side. Three sets of parallel lines around neck and spout.

Prov. Larnaca.

214. Jug. Body pear-shaped, without base. High slender tapering neck. Lip, broken away, probably expanding. Handle from body probably to lip, round. Clay brownish, slipped, with a lustrous red-brown surface. Ht. 0.113; diam. 0.068; aperture 0.005. Decoration incised. Incisions filled with white earth. On neck, two rings, one of six, the other of seven parallel lines. On the body three bands (the upper interrupted at the handle juncture) of two parallel lines filled with a band of hatchings slanting left to right. Between the second and the third band, a zigzag band of four parallel lines. Prov. Larnaca. Cf. O. R., pl. 216, 4-7, 12, 14; *C.V.A. Br. Mus.* II C a, pl. 3, nos. 5, 13.
215. Hemispherical bowl with nub (survival of string-handle). (Pl. 21.) Diam. 0.092; ht. 0.055. Clay greyish, slipped and highly polished by hand. Black on the inside and to a short distance below the lip on the outside; the rest of the outside is a clear yellow-red. For this variation in the color, cf. MYRES, 20. Decoration incised. Incisions filled with white earth. Around the lip, band of cross-hatchings ca. 0.012 wide, made by drawing groups of from five to nine (usually eight) parallel lines at short intervals from each other. On the bottom nine concentric circles. On the sides, two zigzags intersect, forming a row of rhomboids which are filled with close-set horizontal hatchings that do not quite touch the zigzag lines. Prov. Larnaca. Cf. MYRES, 125-127; *C.V.A. Br. Mus.*, II C a, pl. 3, nos. 19, 22, 33, 35; *Arch.*, xlv, 1877, pl. 9, no. 4.
216. Hemispherical bowl, with nub on rim pierced horizontally. (Pl. 21.) Lip thinned, as in 215. Diam. 0.085; ht. 0.048. Clay dark grey, slipped or glazed, high lustre. Black within, going into grey-brown on outside. Glaze worn off in spots, especially on the outside. For the color, cf. MYRES, 20. Decoration incised, white filling. Below lip an encircling band composed of a triple zigzag between two straight ribbons of three parallel lines each. On bottom nine concentric circles. On side, four triangles pendant from rim-band, filled with lines drawn parallel to left side of triangles. Intervals filled with pattern made up of four parallel lines ca. 0.004 apart, drawn from rim-band to bottom circles on same slant as right side of triangles, and filled with horizontal hatchings to form a quincunx pattern. Prov. Larnaca. Cf. MYRES, 128-132.
217. Lekythos. (Pl. 21.) Spherical body, flat base, high tapering neck tipped slightly back, funnel mouth, strap handle from shoulder to middle of neck. Ht. 0.15; diam. 0.092. Clay yellow, red slip with little polish. Handmade; bottom end of handle extended within body, ending in a sharp point (cf. Pl. 25, Fig. 1). Handle ridge and relief decoration consisting in front of gore from neck nearly to base, made up of serpentine ridge between two straight ridges; on each side, single straight ridge from neck nearly to base. Prov. Larnaca. Cf. MYRES, 40, no. 354; *J.H.S.*, xvii, 1897, 73, fig. 10; *C.V.A. Br. Mus.*, II C a, pl. 9, nos. 28-30; pl. 11, nos. 1-4; *ibid.*, *Copenh. Mus. Nat.*, pl. 24, no. 5.
218. Jug, with high foot, ovoid body, tall cylindrical neck, funnel-shaped rim, strap-handle from shoulder to point two-thirds up neck. Edge of base-ring and of lip slightly grooved; small shoulder at juncture of neck with body. Ht. 0.245; diam. 0.12; mouth 0.085. Clay brown with a grey-black lustreless slip. Decoration, representing a binding of rushes, consists of five parallels drawn in cream-white lustreless paint. On neck two rings, one under lip, interrupted by handle-juncture, and one above lower end, also interrupted under handle. On shoulder, including flange at neck-joint, similar band, running somewhat more than half way around. On back of handle two incised lines running from top to bottom, with short incision cut between them and parallel with them at bottom. Cf. MYRES, 37, nos. 321-2; *J.H.S.*, xvii, 1897, 150, fig. 7, no. 5; 151, fig. 8, nos. 1-2, 5-7; *C.V.A. Br. Mus.*, II C a, pl. 10, nos. 9, 11, 13, 15-20.

219. Hemispherical bowl, with horizontal horned handle shaped like a wishbone. Diameter from side to side (0.175) is a little greater than from front to back (0.165), and the edge rises somewhat higher on the sides (0.11). Coarse dark red clay, chalky slip.
Three decorative elements, lattice, ladder, and diamond chain. Painted in matt black on chalky slip. Arrangement of decoration similar to that of bowl from Lakshà tu Riù, *J.H.S.*, xvii, 1897, 151, fig. 8, 9. Prov. Larnaca. Cf. *C.V.A. Br. Mus.*, II C a, pl. 7, nos. 19-27, 31, 34; pl. 8, nos. 6, 11; *Arch.*, xlv, 1877, pl. 10, no. 2.
220. Jug. (Pl. 21.) Shape is that of a cream-jug, but base is so little flattened that the vase will not stand upright. Ht. 0.078.
White clay covered with hard lustrous cream-white slip.
Decoration in matt black brown. Inside neck six equidistant groups of two parallel vertical drops; that at base of handle is prolonged over back of handle to lower handle-juncture, where it terminates in a ring around the handle. Around the neck, but interrupted under handles, two sets of two parallel lines, a single line, diamond chain, and ladder-pattern beginning and ending at handle-juncture. From ladder-pattern hang four pendent ladders alternating with four pendent diamond chains. Prov. Larnaca.
Cf. *C.V.A. Br. Mus.*, II C a, pl. 7, no. 7; MYRES, 32.
221. Oinochoe. (Pl. 21.) Body nearly spherical, high neck, narrowing toward top with slightly convex curve; expanded lip, rolled inward at sides. Strap handle from shoulder to lip, with right-angled bend. Small base ring. Wheelmade. Ht. 0.12; diam. 0.082.
Clay yellow, covered after decoration by blackish paint, unpolished. Incised decoration, five light parallel lines ringing the shoulder, interrupted by handle juncture, and a series of deeply graven striations drawn from circles to base, to imitate ribbing.
Prov. probably Cyprus.
Cf. *O. R.*, pl. 173, 19 b; MYRES, 55-56, 60, no. 486; *Arch.*, xlv, 1877, pl. 12, no. 3.
222. Amphora. (Pl. 21.) Low flat foot, body nearly spherical, wide short cylindrical neck with sharply profiled flat rim; vertical handles from lip to shoulder, sharply bent. Ht. 0.20; diam. 0.165; mouth 0.115; base 0.08.
White clay, cream slip.
Within rim a wide red band bordered with black; on rim a series of small black triangles, base outward; back of handles black; on neck two wavy lines in black between two red lines; at base of neck a heavy black band; on shoulder a *Bogenfries* of lotos buds in red, point upward, interrupted by handles; below this a black line, a broad red band bordered by black, six black lines close together, and a wide band of black; at juncture of foot and body a red band. Prov. Larnaca.
Cf. MYRES, 82, no. 669; *C.V.A. Copenh. Mus. Nat.*, pl. 25, no. 6.
223. Small amphora. (Pl. 21.) Body nearly spherical, with slight base; wide cylindrical neck with profiled rim; small vertical handles from shoulder to rim, sharply bent. Ht. 0.117; diam. 0.105; mouth 0.088.
Light brown clay with dull red-brown slip; on one side, blackened by irregular firing.
Decoration matt black: two stripes on rim; back of handles black; narrow ribbon about base of neck; four parallel lines about body just above greatest diameter; on each side of neck two targets of four concentric circles each. Prov. Larnaca.
Cf. MYRES, 107-108, no. 846; *C.V.A. Copenh. Mus. Nat.*, pl. 27, no. 8; *ibid.*, *Musée Scheurleer (La Haye)*, II C b, pl. 4, no. 7.
224. Small jug. Body nearly spherical, on small base slightly concave beneath; narrow neck expanding gradually from base to mouth where it flares sharply like mouth of trumpet; small sharp ridge around neck at about middle point; small sharply curved handle from shoulder to neck below the ridge. Ht. 0.108; diam. 0.072.
Clay yellow-white, covered with thin red slip only slightly lustrous, decoration in matt black. Slip has scaled badly.
Stripes on lip and around body and neck; two parallel stripes on sides of handle, connected by cross markings. On shoulder targets of three concentric circles each. Prov. Famagusta, Cyprus.
Cf. *O. R.* pl. 216, no. 13; MYRES, 107, no. 833; *C.V.A. Copenh. Mus. Nat.*, pl. 27, nos. 1, 2; *ibid.*, *Mus. Scheurleer (La Haye)*, II C b, pl. 4, nos. 1, 3.

225. Oinochoe. Spherical body on small concave foot; cylindrical neck, slightly bulging in middle; trefoil mouth; double rod handle from lip to body. Ht. 0.207; diam. 0.156.
Clay whitish; lustreless light buff slip showing wheel-marks plainly. Decoration of «vertical-circle» and concentric circles, cf. MYRES, 87-88. Two rings at top of neck and one at bottom. Two targets below lower handle-juncture and three in a vertical line in front, all in black. On each side of body a scheme centering on the middle point, composed of five concentric circles in black, heavy spaced two and two with a red circle between; a ring of four circle targets in black, and three «vertical-circles» in red. Prov. Larnaca.
Cf. MYRES, 87-89, nos. 707, 712; *C.V.A. Copenh. Mus. Nat.*, pl. 26, no. 5; *ibid.*, *Louvre*, II C b, pl. 13, nos. 9, 11.
226. Oinochoe. Spherical body resting on small concave foot; cylindrical neck flaring at mouth; sides of mouth sharply pinched in; handle, from lip to shoulder, made of two cylindrical rods pressed together; handle bent at sharp angle. Ht. 0.197; diam. 0.134.
Fine brown clay with glossy red slip. Decoration in matt black which in places has weathered away, corroding slip beneath it, so that pattern stands out in clay color.
Decoration of horizontal, vertical, and concentric circles. Horizontal circles surround body just under handle. In front, in the panel above the horizontal circles are four targets and four below which are grouped around a larger one; at the back a large target with two smaller ones above it to right and left. Between the upper group of four targets in front, three lines cross one another and continue on into the lower panel. For this element of the design, cf. *C.V.A. Copenh. Mus. Nat.*, pl. 27, no. 9. Prov. Larnaca.
Cf. MYRES, 106-107, nos. 805-808; *Arch.*, xlv, 1877, pl. 11.
227. Barrel-jug. Ellipsoid body without any base; neck on the short axis, and long axis runs from side to side. At ends of barrel-shaped body are slight nipple-like projections. Wide neck with a bulge in it at the attachment of the handle; flaring mouth; small broad handle from body to middle of neck, in the line of the short axis. For the shape, see MYRES, 78. Ht. 0.34; diam. from front to back, 0.258, from side to side, 0.36.
White ware with a greenish-yellow slip.
Decoration in matt black-brown: rings about neck and inside mouth; ladder pattern on back of handle ending in a circular spot that covers the lower juncture; to right and left of handle a set of two vertical bands with finer lines between them; between these, in front, a vertical row of three targets, and behind, below the handle, two targets; a large target centering on the nipple at each end. Prov. Larnaca.
Cf. MYRES, 78-79, nos. 617-624; *C.V.A. Copenh. Mus. Nat.*, pl. 25, no. 10; *ibid.*, *Louvre*, II C b, pl. 9, no. 1.
228. Barrel-jug. Form similar to that of 227. Neck is cylindrical as far as the handle attachment, above which it contracts somewhat, to expand again in a flaring lip; the handle is wider and bent at a right angle; the nipples are a little more accentuated. Ht. 0.32; diam. (short axis) 0.23; (long axis) 0.335.
White ware with greenish-yellow slip. Remains of calcareous incrustation.
Decoration in matt black and red: about each nipple a large target in black with a red centre; ringing the body, from the end to the handle, two red bands (now nearly black) with black borders, a series of targets connected by a line through their centres, and a group of fine lines between heavier ones; in front and behind, four small targets grouped in a quincunx about a larger one; from this quincunx depends another large target. Prov. Larnaca.
230. Large Amphora. Ovoid body, high slightly flaring neck, almost vertical handles. Ht. 0.825; diam. 0.49.
Brownish clay with white slip.
Geometric decoration in red and black. Inside mouth, two stripes, and on lip groups of transverse triangles in black. Neck is separated from shoulder by a wide black band and elaborately decorated with panelling; at top and bottom wide red bands and narrow black ones, connected by sets of vertical parallels; in the middle panel, in front and behind, an ornament like MYRES, 76, no. 608. To right and left a panel in the center of which is a small oblong in red with four transverse zigzag markings in black. In the panels over the handles an attenuated network of which the lozenges in alternate rows are filled with red. Around the body a band above the handles; below them a set of wide and narrow lines, and between handles and foot a set of two bands. On shoulder, in center of each side an ornament consisting of concentric triangles, the inner latticed and the whole between two angular lotos-petals; to left and right vertical lines between similar «leaf-shaped excrescences».

For design of shoulder ornament, *cf.* MYRES, 77, no. 613. Over handles sets of vertical lines. Handles black with long black point extending down from each juncture.

For decoration on lip, *cf.* C.V.A. *Louvre*, II C b, pl. 19, no 7, where however the strokes are not triangular.

231.

FRAGMENTS FROM THESSALY.¹

1. Fragment (made up of two pieces) of the wall of a small hand-made vessel in grey-black clay full of opaque white granules. Levigation of the outer surface has driven these to the interior; the surface is well smoothed, varying from warm brown to sooty black in color, and contains extremely minute glancing spiculae. Dimensions, 0.05×0.038 ; thickness, 0.0015-0.0035.
2. Fragment of the rim of a vessel. Clay black, similar to 1, but better purified. Hand-made, and highly polished by levigation. Dimensions 0.036×0.03 .
3. Fragment from the body of a large vessel, with the lower part of a vertical handle. Clay as in 1; the outside is covered thinly with an earthy reddish slip (worn off in spots) and levigated, the marks of the implement showing plainly; *cf.* TSOUNTAS, 161. Vertical curvature of wall (0.005 thick) is much greater than horizontal. Handle is elliptical in section. Dimensions 0.11×0.09 .
4. Fragment of hand-made, hand-polished vase, suspension-handle in form of a low protuberance pierced by a vertical hole. Clay well purified and containing minute glancing spiculae; brown in center, deepening to reddish on surfaces. Both inner and outer surface well polished. Dimensions, 0.034×0.026 .
5. Fragment from rim of a large vessel. Very coarse clay; blackish in centre, becoming brick red on surface, which is hardly smoothed at all. Horizontal curvature slight; no vertical curvature. Three suspension holes bored through fragment 0.025 below edge, 0.032 and 0.039 apart. From a greatest thickness of 0.012 just below the holes, wall is thinned off in both directions. Dimensions, 0.10×0.06 .
6. Fragments of large vessel (made up of two pieces). Coarse yellowish clay full of white opaque grains; both interior and exterior surface covered with lustreless red slip or wash, thin and scaly. Very little curvature. Dimensions, 0.08×0.05 ; thickness, *ca.* 0.01.
7. Two pieces (a, b) of wall of vase of grey-black clay. Surface smoothed but not polished. Decorated with sets of deeply-incised parallel straight lines and zigzags. Dimensions, (a) 0.065×0.05 ; (b) 0.039×0.025 .
9. Part of handle of large vase, wide; no perceptible bend. Central core of black clay with white granules, covered with dark red slip. On back of handle is incised a spiral system of two parallel lines. Length 0.08; dimensions at lower end, 0.045×0.018 , at upper 0.041×0.01 .
Cf. TSOUNTAS, 252, fig. 153 (Γ 2 ware); but see W. T., 77, who assign it to the B 2 class; *cf.* also TSOUNTAS, pl. 16, no. 2.
10. Fragment of shallow bowl extending from bottom to rim. This fragment establishes the shape of the basins from which the other pieces are fragments. It was a circular bowl with a flat bottom, very flaring sides and a thinned lip curving slightly in. For shape, *cf.* TSOUNTAS, pl. 9; W. T., 76, fig. 36. Dimensions of basin to which it belonged, ht. 0.10; diam. of base, *ca.* 0.07, on top, 0.30. W. T. B 3 *a* (2) ware, *i. e.* red polished ware with geometric designs in black.
- 11-12. Fragments of B 3 *a* (2) ware, no. 11 consisting of two parts, of which a is from bottom with part of side. Dimensions of 11 a, 0.037×0.08 ; of 11 b, 0.05×0.065 ; of 12, 0.063×0.08 . Design on inside, key-pattern outlined and filled in with parallel lines; on outside, checker-board pattern.
Cf. C.V.A. *Copenh. Mus. Nat.*, pl. 38, nos. 18-21.
- 13-16. Fragments from bottom and side of four bowls of W. T. B 3 *a* (3) ware. Buff clay with cream white slip and decoration in matt black. Diameter of base, *ca.* 0.08.

¹ These are from Dhimini; see above, p. 104.

- 13-14. Design on inside, spiral volute; on outside of 13, latticed design (*cf. C.V.A. Copenh. Mus. Nat.*, pl. 38, no. 19); on outside of 14, checker-board design.
15. Bottom has hole bored through it, rimmed out on both sides. On inside, key pattern filled in with parallel lines; on outside, checkerboard design.
16. On inside and outside, key-pattern; but that on outside filled in with lattice-work, rather than usual parallel lines.
17. Fragment from the rim of a bowl, showing marks of suspension handle. Dimensions 0.07×0.08 .
Buff clay with cream white slip on inside; outer surface, slightly reddish; decoration in matt black.
On inside, key pattern filled in with parallel lines, *cf. TSOUNTAS*, pl. 21, no. 1 β ; on outside, geometric design filled in with parallel and diagonal lines.
18. Fragment from rim of bowl, showing handle.
Dimensions 0.107×0.046 .
Red clay with cream white slip on inside; outer surface brick red, checker-board design.
- 19-24. Fragments from the rims of six bowls, 19-23 showing the marks of suspension handle, 24 with suspension handle.
Dimensions of 19, 0.06×0.07 ; of 20, 0.03×0.04 ; of 21, 0.06×0.064 ; of 22, 0.052×0.08 ; of 23, 0.03×0.05 ; of 24, 0.055×0.065 .
Clay buff with cream white slip, surface of 19 slightly reddish. Decoration in matt black. On outside of 19-20, 22-24 key pattern, of 21, checker-board. On inside of 19 spiral volute, of 21 and 23 key pattern, of 24 combination of key pattern and spiral volute (*cf. C.V.A. Copenh. Mus. Nat.*, pl. 38, no. 23). For key pattern of 19, *cf. ibid.*, pl. 38, no. 10.
- 25, 29. Fragments from the rim of two bowls, no. 25 made up of two pieces.
Dimensions of 25, 0.035×0.07 ; of 29, 0.045×0.046 .
Buff clay with cream white slip, decoration in matt black.
Design on outside is key pattern; that of 29 outlined and filled in with parallel lines; in 25 the design is reserved within a solid triangle; *cf. C.V.A. Copenh. Mus. Nat.*, pl. 38, no. 16.
On the inside of 25, eight lines parallel with rim, which are connected by short cross lines spaced like broken joints in masonry; *cf. C.V.A. Copenh. Mus. Nat.*, pl. 38, no. 1.
- 26-28. Fragments from the rim of three bowls, 27 showing the suspension handle.
Dimensions of 26, 0.046×0.047 ; of 27, 0.038×0.068 ; of 28, 0.035×0.04 .
Buff clay covered with cream slip, decoration in chocolate brown. On outside of 26, key pattern outlined and filled in with diagonal parallel lines. 27 shows a small pendent spiral in the interstice left by a cross-hatched key pattern; *cf. TSOUNTAS*, pl. 24, no. 7. On outside of 28, diagonal parallel lines connected by short cross lines which are spaced like broken joints in masonry; *cf. C.V.A. Copenh. Mus. Nat.*, pl. 38, no. 1.
- 30, 31. Fragments from the walls of two bowls; 30 consisting of two pieces. Dimensions of 30, 0.055×0.06 ; of 31, 0.047×0.063 .
Clay buff covered with cream slip, decoration in chocolate brown; 30 highly polished. Spiral volute on outside of 30 and inside of 31. Key pattern probably on inside of 30 and on outside of 31.
32. Fragment from rim of a hemispherical cup in reddish clay. Slip is red on inside, creamy white on outside; linear decoration in faded brown on outside. Dimensions, 0.045×0.04 . Suspension handle pierced by two vertical holes.
33. Fragment from the rim of a deep circular bowl with nearly straight sides. Clay, slipped, is burnt on the inside; the outside is brownish red, with decoration in matt black consisting of two sets of concentric arcs pendent from the lip, in a panel of parallel lines.
Dimensions, 0.075×0.075 .
34. Small fragment of brown clay with dark core; both surfaces painted dark red, on which linear decoration in matt black, faded on inside to pale brown. 0.03×0.04 .
35. Fragment from rim of bowl, showing part of suspension handle. Lustrous blood-red glaze on brown clay with a dark core.
Linear decoration in slightly lustrous black.
Made up of three pieces, 0.05×0.45 .

36. Irregular fragment of wall of a large vase, showing one suspension hole bored through it, and the edge of another 0.045 away.

Dimensions, 0.135 × 0.115.

Brown clay, slipped, on which is polychrome decoration in three colors, a slightly lustrous black, fading into olive brown, a bright red wash and (on the inside) an opaque white.

On outside, key pattern outlined in black and filled in with red; the intervening space is color of slip. On inside, a spiral system in red with black borders, the interspaces being filled in with white.

PRE-MYCENAEAN CYCLADIC WARE.

232. Small suspension vase of reddish clay irregularly fashioned. (Pl. 22.) Pear-shaped body with a small flat base passing over gradually into a wide slightly flaring neck. Handles made by sticking on pinches of clay in shape of rude vertical ears through which a horizontal hole is driven. Ht. 0.088; diam. 0.06; mouth, 0.035. Coll. de Cigalla, Thera. Armour-Norton, 1904.
233. Small suspension vase of coarse reddish brown clay. Shape as 232, but body fuller and neck more flaring. On each side a horizontal ledge-handle cocked up a little, through which two vertical holes are punched. Surface slightly smoothed. Hand-made. Ht. 0.08; diam. across handles, 0.085.
234. Small hand-made suspension vase of coarse yellowish brown clay; rude technique. Slightly larger than 233. Ht. 0.088; diam. across handles, 0.09. Both from Santorin.
235. Spherical vessel, with sloping shoulder and wide mouth rolled out slightly to form a small neck. Flat bottom; on each side, just above greatest diameter is a small projecting nub. Ht. 0.113; diam. 0.116. Rather coarse red clay containing opaque white granules, covered with a very thin coat of finer clay smoothed by hand (the fine seams are here and there visible); from red-brown to smoky black. Prov. Santorin.
236. Vessel of shape similar to 235: the shoulder sets off more sharply from the body and is slightly concave; the mouth is wider and the lip more *évasé*; the inside of the lip is bevelled. In addition to two nubs as in 235, but smaller, there is on each side half way between them a group of three nubs, one small one above, and two longer horizontal ones beneath. Ht. 0.115; diam. 0.115; mouth 0.07; base 0.041. Brown clay, with a finer reddish surface rudely smoothed with an instrument. Prov. Santorin. Cf. *Ἀρχ. Ἐφ.*, 1898, pl. 9, no. 21, and cols. 154, 157 (from Amorgos).
237. Small suspension vessel. (Pl. 22.) Oblate spheroidal body, small base slightly flattened; wide mouth, surrounded by small, sharply profiled lip. Sides fairly thin. On each side at greatest diameter a pair of suspension handles. Ht. 0.066; diam. 0.095; mouth 0.061; base 0.038. Rather coarse dark clay with a smooth highly polished surface varying from grey to brown, red, and black. Hand-made, hand-polished, good technique. Prov. Santorin.
238. Small jug. (Pl. 22.) Rounded under-body with flat bottom; shoulder inset, sloping, slightly concave; wide mouth without profile; for shape, cf. *J.H.S.*, v, 1884, 54, fig. 10; 56, fig. 13; *Ἀρχ. Ἐφ.*, 1898, pl. 9, nos. 1, 2, 4. Vertical ring-handle from point of greatest diameter to point just under lip. Ht. 0.07; diam. 0.075. Hand-made. Clay, full of white granules, has a black core and a red surface, rudely smoothed by hand. Prov. Santorin. Cf. *Thera*, ii, 36, fig. 110.
239. Mug. (Pl. 22.) Spherical body with flat base, high flaring concave neck, round vertical handle from shoulder to neck. Ht. 0.117; diam. 0.102. Very pale fine yellow clay, slightly greenish on surface which is smoothed with a tool. Two pieces of lip mended. Prov. Santorin. Cf. *Ἀρχ. Ἐφ.*, 1899, pl. 9, no. 7; col. 93.
240. Beaked jug. (Pl. 22.) Shape of body is that of two spherical segments with plane surfaces joined; small base, slightly concave beneath, with slightly profiled edge; short neck, contracting and then flaring out to form an obliquely cut pointed spout (now lost); round bow handle, tapering toward upper end, from middle of upper body to neck just below rim. Ht. 0.095; diam. 0.098.

Clay dark brown with a fibrous appearance on fractured edges, which resembles leather. Highly lustrous jet black glaze with very faint streaks, possibly brush-marks. Glaze has disappeared from inside of mouth and part of neck, handle, and body underneath handle joint. Incised decoration. Neck set off from body by a deep groove ringing its base; around this, on body, a collar of two rows of incised points. Above sharp line, where upper and under body meet, a row of dots and another below it, as if two halves had been stitched together. Upper body is ornamented with vertical sets of incised chevrons, set so closely together that they give almost the effect of parallel zigzags running round the vase. Prov. Santorin.

For shape of neck, mouth, and handle, cf. *'Aρχ. 'Εφ.*, 1898, pl. 9, no. 26, col. 154; 1899, pl. 9, no. 2, col. 92.

241. Pyxis with cover. (Pl. 22.) Cylindrical in form, diminishing in diameter from bottom to top in concave curve. Cover slightly convex with projecting ring underneath, which fits into mouth of box; bow-handle on top broken off. Near edge of lid a hole bored through it on each side; these holes almost correspond to two through walls of box near edge; through these cords were passed by which lid was tied to the box. Total ht. 0.112, of box 0.093; diam. of base 0.145, of mouth 0.12, of lid 0.128; centers of points of attachment of handles 0.04 apart. Rather coarse brown clay containing white granules, covered with fairly thick brown slip, scaled off in a large patch on one side and a small one on bottom.

Incised decoration. Irregularly spaced targets of four concentric circles each, impressed by a stamp. On sides of box the two sides of most of the targets are deeper sunk than the top and bottom. As this is the reverse of what would happen if the stamp were impressed straight on a similarly curved surface, probably the handle of the stamp was rocked from right to left in order to insure that the sides of it left their mark. Around top and bottom of box and on lid near edge a set of two parallel rings; a line surrounds space which was covered by handle.

Cover in four pieces, mended. Prov. Santorin.

Cf. pyxides from Phylakopi, *Phylakopi*, 87 ff., pls. 4-5, especially shape of cover, pl. 4, no. 5.

MYCENAEAN VASES.

242. Beaked jug, hand-made. (Pl. 22.) Full elliptical body with flaring foot; on shoulder two protuberances imitating breasts; neck inclined backward, ending in a narrow oblique spout directed well upwards. Mended. Ht. 0.27; diam. 0.116.

Coarse yellow clay with thin slip of same color.

Decoration in faded matt black paint. End of spout colored (broken off); on each side of spout a large circle representing an eye; around top of neck a row of small tear-shaped dots, and around its base a ring of five large round spots interrupted by handle-juncture which is circumscribed with a wide ring; breasts blackened and each surrounded by a ring of dots. Band about body just above the foot and one about the top of the foot. Thera, Coll. de Cigalla. Armour-Norton.

Cf. D. C., pl. 1, no. 3; *Phylakopi*, 108; pl. 14, no. 1.

243. Beaked jug. (Pl. 22.) Body made up of two similar truncated cones with slightly convex sides set together base to base; small foot, very slightly concave; neck curves strongly backward, ending in a long spout of which the sides are pinched close together; strap-handle. Ht. 0.21; diam. 0.16. Handle and one side of spout mended. Whitish clay and slip, with decoration in matt brown. On under side of spout and on back of handle transverse lines; around base of neck and on shoulder three parallel rings above handle-juncture and two below it, with a row of circles with dotted centres between them; just above the sharp angle where the upper and lower body meet are two parallel lines running around; space between this and the previous set is divided into four panels by four vertical ornaments: (1) in front, a checkerboard between double vertical lines; (2) below handle, a pendent triangle in outline, within which one in solid color; (3 and 4) on each side double verticals, between which a single vertical line on which are set small solid triangles with their apices alternately to right and to left. In each of four panels a vertical spiral on each side of which is a dotted circle. Probably wheel-made.

Prov. probably Rhodes. Armour-Norton, 1904.

Cf. *Phylakopi*, 118, § 9, 9; for design, fig. 90 and pl. 18, no. 25.

244. Small cup, nearly cylindrical, but with sides slightly concave and mouth somewhat larger than base. Small vertical strap handle attached just below lip and just above bottom, strongly looped, with depression running down centre. Bottom nearly flat, slight concavity in centre. Ht. 0.053; diam. (mouth) 0.06. Clay brown with light slip, decoration in matt black, much faded and weathered. Ring inside to depth of 0.015-0.02; narrower ring outside around rim; around lower part two similar rings; between, horizontal system of chevrons, angle to right, interrupted under handle. Both handle-junctures marked in black, connected by two careless lines beneath handle and two running over back of handle, marking edges. On bottom faded traces of four or five concentric circles.
Prov. Apolakia, Rhodes. Armour-Norton, 1904.
Cf. *Myk. Vasen*, pl. 10, no. 63.
245. Amphora, with wide mouth and *évasé* lip; slightly profiled base-ring; two horizontal handles set just above greatest diameter, at a sharp angle. (Pl. 22.) Ht. 0.198; diam. 0.193; mouth 0.12-0.127; base 0.086; diameter of mouth from front to back is shorter and sides are lower than from side to side, as in Cypriote bowl. Wheel-made. Coarse brown clay with irregularities visible through thin whitish slip which was applied with brush. Decoration in matt black; heavy band covers inside of lip and another the outside, below which are half a dozen fine lines limited by a broader line; two similar bands of fine lines between broader ones ring body under handles and above foot; between handles, on shoulder, a chain of squares set cornerwise, within each of which squares is another latticed square. Hasty execution has made the design somewhat curvilinear. Handles marked with transverse daubs on top, and on bottom of vase are two concentric circles. Prov. Apolakia, Rhodes. For shape, cf. *C.V.A. Copenh. Mus. Nat.*, pl. 43, no. 10.
246. Bowl. Small base, concave beneath, from which rises conical under-body, which passes abruptly into cylindrical upper-body. Two horizontal handles, cocked sharply upward. Ht. 0.113; diam. 0.165. Clay buff, good; smooth buff slip; decoration in matt black shading into brown, blistered in parts where thick. Interior unpainted. Band of brown on edge of lip, another on shoulder and a third around base. Handles marked with a dash of paint on outside of each juncture and a longitudinal daub along band. On each side between handles a system of three spirals connected tangentially and two pairs of smaller spirals, one rolling up and the other down, tangent to the last large spiral on the left. Prov. Apolakia, Rhodes. Wheel-made. For shape, cf. *C.V.A. Copenh. Mus. Nat.*, pl. 54, no. 7, which has, however, a larger base, and *ibid.*, *Br. Mus.*, II C b, pl. 8, no. 2, which has a profiled edge.
247. False-necked amphora. Spherical body set on small base ring slightly profiled. Wheel-made. Ht. 0.143; diam. 0.124. Clay light-colored; thin light brown slip. Decoration in lustrous black, thinning into lustreless watery brown. Two bands on shoulder and one around foot, composed of fine lines between wide ones; handles and lip edged, and base of neck and of false neck ringed with black; concentric circles on top of disk closing false neck; shoulder space filled with four triangles, based on uppermost body-ring and with apex touching ring around base of false neck; two triangles behind filled with scale pattern, two in front with hook-like pendant from apex (point of hook to left) and with dots along base and lower part of sides of triangle. Prov. Apolakia, Rhodes. Cf. *C.V.A. Br. Mus.*, II C b, pl. 2, nos. 1-8; pl. 3, nos. 2-4; *ibid.*, *Copenh. Mus. Nat.*, pl. 59, nos. 11-19; pl. 60, no. 1. For triangle with pendent hook, cf. *Myken. Vasen*, pl. 17, no. 113; *C.V.A. Copenh. Mus. Nat.*, pl. 62, no. 1.
248. False-necked amphora. Wheel-made. Pear-shaped body rising out of small foot, slightly profiled and concave beneath. Beak on one side. Mended; small triangular bit lacking. Ht. 0.17; diam. 0.127. Clay light buff, slipped with somewhat lighter color. Decoration in bright lustrous red, which appears blackish where thickly applied. Three bands around vase composed of four to six fine lines between two heavier. Lower ring of lowest band is very broad, covering whole base and foot. Waved rings at bottom and top of spout; ring at bottom of false neck; top of false neck and back of handles covered with color except for reserved ring on top of false neck; shoulder decorated with triangular ornaments looking like quadrantal segments of a target of six to eight circles. One side of these segments rests on upper ring of body; apex to the left. Prov. Apolakia, Rhodes. Cf. *C.V.A. Copenh. Mus. Nat.*, pl. 57, no. 2, 7; *ibid. Br. Mus.*, II C b, pl. 2, nos. 15, 17, 19.

- For design on shoulder, *cf. Myken. Vasen*, pl. 22, no. 164; *C.V.A. Copenh. Mus. Nat.*, pl. 56, no. 6; *ibid.*, *Brux. Cinqu.* III, A, pl. 1, no. 5 b.
- 249-260. Lot of twelve common unpainted Mycenaean cups in form of truncated cone, made up of reddish brown to light brown clay. Rudely turned on wheel, nearly all showing a shallow spiral groove inside, beginning at bottom and ending at top, with about three turns, which must have been produced by thumb of potter. 260 has profiled edge. Ht. 0.045-0.05; diam. 0.075-0.085 (260, ht. 0.045; diam. 0.09).
Cf. Phylakopi, pl. 36, no. 3 (for 260, no. 9). For the earlier prototype, *cf. MACKENZIE*, in *J.H.S.*, xxiii, 1903, 180-181, fig. 8.
- 261, 1-22. Lot of twenty-two fragments, miscellaneous, from Knossos, given in part by Mr. Norton, in part by A. W. Van Buren.
1. Neolithic, of greyish black, hand-polished bucchero.
- 2-17. Polychrome Kamares, of which 16 and 17 have serrated ridges in barbotine relief.
3, *cf. EVANS*, 238; 8, *cf. ibid.*, 178, fig. 127, f.
For shape of 10, *cf. HALL*, 13, fig. 14 e; of 12, *cf. EVANS*, 167 and 169, figs. 118 a, 7 and 120; "pedestalled cup".
- 18-20. Three monochrome fragments with dark stripes on buff clay.
21. Spout of a bowl, varnished black.
22. Piece of handle in buff clay, edged with lustrous red.
- 262, 1-5. Fragments of Mycenaean Third Style. Given by A. W. Van Buren. For design of 1, *cf. Myken. Vasen*, pl. 30, nos. 274, 277; of 2, *cf. ibid.*, pl. 27, no. 222; pl. 33, no. 328.

GEOMETRIC WARE.

263. Small disk with two horizontal handles, ends recurved. Ht. 0.045; diam. 0.129.
Brown clay with very slight slip, brushed on. Black within.
Geometric decoration. On edge, six groups of three to five spots; on outside, two parallel lines; a row of dots; three parallel lines; a row of upright ellipses connected by tangents, each ellipse obliquely hatched; two parallel lines; on bottom within a limiting circle, a rosette of four double petals, and in spaces between petals pendent triangles cross-hatched; handles have brown lines above and below.
Prov. Thera, Coll. de Cigalla; Armour-Norton.
Published *Thera*, ii, 184-185, fig. 377, where it is attributed to a non-Theran fabric perhaps located on one of the southern islands.
264. Rattle. Small flask-like object of warm brown clay, hollow; on edge, the remainder of a handle, which had a hollow communicating with the interior; opposite the handle a hole has been cut through the edge into the interior, and a small hole bored through the body from side to side, just under and to side of handle attachment, within raised beading. Small hole bored through near handle served to suspend toy after handle had been broken. Diam. 0.085; thickness 0.035.
Geometric decoration in black lustrous paint, most of which has worn off. Edge, including mouth and beading on sides, was once covered with solid black. Side A (illustrated *Thera*, ii, fig. 310) has rosette of nine lotus-buds grouped somewhat irregularly about central black circle, diagonally hatched and open at tip. In five broader spaces are traces of paint which show presence of *Füllornament*.
Side B, tongue pattern radiating from centre to form a rosette.
Thera, Coll. de Cigalla. Armour-Norton, 1904.
Published, *Thera*, ii, 120, fig. 310; *cf. rattle from Eleusis, 'Aex. 'Eφ.*, 1898, 112, fig. 31.

PROTO-CORINTHIAN VASES.

300. Greater part of a cylix of Corinthian Geometric ware. Very slight base, convex bowl, rounded shoulder, offset lip. Bit of one side, about equivalent to two-fifths of dish and including one handle, missing. Other handle also missing (broken off flush with surface) and remainder of bowl mended out of three pieces. Ht. 0.057; diam. (mouth) 0.13.

Very thin walls (0.002); light brown clay with very thin café-au-lait slip flecked off in places. Decoration mainly in bright red which changes to brown and black, according to application and firing. Interior solid red, except a narrow reserved line just under the edge; on the red, three narrow bands of dark purplish red, set at approximately equal intervals between rim and center of bottom.

Outside: on rim, solid band of bright red beginning just inside the edge and lapping slightly over on to shoulder. Wide band just below shoulder with three narrow bands just below it. From base, which is edged with brown, radiate four groups of five tongues each; between these groups fringes of short vertical lines hang down from bands above. On bottom a circle defines the edge of the central depression, and within the latter is a dotted circle. Prov. Veii. A. W. Van Buren, 1904.

For shape, cf. *cylix* from Syracuse (*Not. Scav.*, 1893, 476), but the base-ring of 300 is much lower and less prominently profiled, and the rim is not so high; cf. also ALBIZZATI, fasc. 1, pl. 1, no. 17.

301. Two fragments of a *kotyle* of the Corinthian Geometric type, one including a handle. Diam. ca. 0.11.

Light buff clay and surface, poorly smoothed.

Decoration in bright red with little lustre. Lower part of cup was in solid color; four or five spaced parallels under the handles and one line on and one below the lip; between the line below the lip and the uppermost of those under the handles, vertical striations. Inside painted in two coats, giving a blackish-brown color; a line reserved just under the lip. Lines along back of handle. Prov. Veii.

Cf. ALBIZZATI, fasc. 1, pl. 1, no. 6.

302. Small plate with low, hollow foot (edge profiled). Hemispherical central bowl is surrounded by a flat rim, heavily flanged. Light brown clay, slipped; decoration in bright red with very little lustre and somewhat flaky. Edge of foot and rim colored. Narrow bands on upper surface of rim. Inside of bowl solid red. Foot mended. Ht. 0.045; diam. of top 0.082, of foot 0.054.

303. Bowl and foot of high-footed plate. Bowl hemispherical with a rim which projects both inside and outside and is convex on upper surface. Small shoulder around juncture of foot. Breaking away of foot has left a small hole in the bottom. Foot is trumpet-shaped, hollow, with a ridge around stem; a piece of the stem is lacking, so that it is not certain that it belongs to the bowl. Ht. (foot) 0.041, (bowl) 0.03; diam. (foot) 0.099, (bowl) 0.102.

Clay very light buff, without slip or polish.

Decoration in two colors, a lustrous watery brown and a matt purplish red. Inside bowl, a thin coat of brown on which two red rings; on the lip, a red ring between two brown ones. On the outside, a stripe of brown around shoulder where foot was attached; a stripe midway on the body. Upper part of foot, and stem covered with thinned brown; ring and edge of foot defined in red. Prov. Veii. A. W. Van Buren, 1902.

For shape, cf. pp. 117 f., no. 304.

571. *Cylix* with offset rim. For form, cf. PAYNE, 310, fig. 152. About half of lip broken away. Ht. 0.087; diam. 0.144, across handles 0.20. Very thin walls. Buff clay with brown slip. Interior covered with dull black varnish except circle in center and a reserved band at edge of lip. Outside, band of varnish on edge of lip. Rest of exterior covered with varnish except two reserved bands, one between handles, the other at juncture of lip and body.

Cylix probably belongs to late type of sub-geometric, described by JOHANSEN, 80-81. Cf. also *Mon. Ant.*, xvii, 1906, 610, fig. 413; *C.V.A. Madrid, Mus. Arch. Nat.*, III, Greco-Oriental, pl. 1, nos. 2-3.

CORINTHIAN VASES.

307. Very large alabastron. (Pl. 23.) Ht. 0.43; diam. 0.138.

Pale brown clay, and decoration in varnish going from brown to red, with superimposed purple-red in places. On lip, tongue-pattern, every third tongue in dark red; on shoulder a series of spaced vertical tongues, below which a set of three encircling bands, the middle one in dark red. Large body design, limited below by a similar but heavier triple band. Bearded centaur (?) to right (on head, ornament like Phoenician palmette) between two lions full-faced, seated toward him; he raises a hand to the chin of each. Lions have extremely small bodies

- and long necks. Red details on neck and shoulders. Rosettes in field, regular. Above this design a narrow frieze of swans and below it an animal frieze of which only a boar (to left) and a panther (to right) are discernible. Mended and restored. Bottom and several pieces of body missing, restored in plaster.
308. Small jar, flattened spherical body on slight base; somewhat wide mouth with profiled lip. Ht. 0.046; diam. 0.088. Very light clay with faint pinkish tinge, decoration in blackish brown. On lip, rays; edge of lip defined in color; around upper half of body, frieze of three swans to right with dark purplish-red breasts; feet on band which limits frieze below. Between each pair of swans, two crossed blotches of color. On lower body, two parallel lines; line on edge of base. Under base, grooved ring.
For swans, cf. MONTELIUS, ii, pl. 327, no. 8.
539. Aryballos, of the usual Corinthian form. Ht. 0.074; diam. 0.068; mouth 0.042. Pale clay with yellowish slip, decoration in greenish brown and matt purplish red. On mouth five concentric circles, middle one in red; on handle two transverse lines in brown. On shoulder tongue pattern. Around body frieze of three swans with purplish-red breasts; feet on band which limits frieze below; also band between frieze and tongue pattern. Space between swans and below their tails filled with rosettes and irregular patches of paint. Incised details on swans and rosettes.
Cf. MONTELIUS, ii, pl. 327, no. 8; ALBIZZATI, fasc. 2, nos. 146, 150; C.V.A. *Compiègne*, pl. 2, nos. 16, 22; *ibid.*, *Copenh. Mus. Nat.*, pl. 95, no. 14.
540. Small jar, similar in form and decoration to 308; lid preserved. Slightly smaller, ht. 0.044; diam. 0.089.
543. Alabastron. (Pl. 24.) Ht. 0.173; diam. 0.089, across mouth, 0.049. Buff clay with slightly reddish slip; decoration in lustrous black and winy red; incised details. Two lions seated facing each other; between them in front, and above their crossed tails, two birds with spread tails; in the field rosettes. On forepart of each lion a large red circle, within which, toward the bottom, a black circle, edged with a row of white dots. Central part of two birds red, and feathers of tails alternately red and black. Black radiating tongues on base, around neck and on flat part of mouth. On edge of mouth and on handle, dots. Line around base and bottom part of neck.
Cf. C.V.A. *Brux. Cinqu.*, III c, pl. 2, nos. 4 a-b.
544. Aryballos, with spherical body, short neck, flat handle. (Pl. 24.) Part of mouth and square bit from side of body missing. Ht. 0.087; diam. 0.082, of mouth 0.048. Grey clay with light greenish-yellow slip, decoration in black with retouches in violet. Careful work of incision. On mouth, black tongue pattern between four concentric circles; on edge, meander pattern. On handle, horizontal strokes between two vertical lines. On shoulder, tongue pattern, two parallel lines, two rows of tiny dots, two parallel lines. Frieze of animals: goat to left grazing between two lions going toward each other (heads facing). On all animals retouches in violet. In the field numerous rosettes. Below two bands and a central ornament composed of seven crescents in juxtaposition with a small cavity in the center.
Cf. C.V.A. *Musée Scheurleer* III, C, pl. 5, nos. 4-6.
545. Alabastron, half of mouth broken away. (Pl. 24.) Ht. 0.075; diam. 0.039, across mouth 0.027. Pale yellow clay with thin slip; decoration in lustrous black with retouches in violet. Incised details. On mouth, tongues alternately black and violet (applied directly on the clay); edge, zone of dots. Handle black; on neck, tongue pattern. Figure of beardless demon, winged, running to right, wings recurved, clad in short tunic (face, garment, wings retouched with violet), pursuing winged animal (retouched in violet). In field rosettes. On base tongue pattern around a central cavity.
Cf. C.V.A. *Musée Scheurleer*, III C, pl. 4, no. 9.

ITALO-CORINTHIAN VASES.

304. High-footed plate. Hemispherical body; broad flat rim setting off sharply from body, nearly horizontal, but sloping slightly downward and outward. Stem has two plastic rings about the middle; foot is broad and hollow. Ht. 0.118; diam. (over rim) 0.151, (foot) 0.099. Clay yellow, lightly baked and soft. Pinkish color of surface and scattered traces of bright red paint indicate

that vase was once covered with red. Segment of rim broken; stem broken away from bowl. Prov. Veii. A. W. Van Buren, 1902.

Cf. ALBIZZATI, fasc. 2, pl. 16, no. 217; *C.V.A. Madrid, Mus. Arch. Nat.*, III C, pl. 1, no. 21 (one ring). For stem, cf. J. SIEVEKING and R. HACKL, *K. Vasensammlung zu München*, i, pl. 41, nos. 941-2, 4-8.

309. Two fragments of a large wheel-made vase, probably an amphora.

(a) 0.17×0.15 ; (b) 0.145×0.19 .

Clay coarse and full of black spiculae. Core dark; grows red as it approaches interior and exterior of jar. Outer surface covered with a very thin whitish wash to which the red of the clay beneath imparts a pinkish tinge. Wash is so thin that it does not fill the irregularities of the coarse surface and the black spiculae are visible in it. On the surface, bands of animals in brown color which varies from bright red to black according to thickness and firing. Details applied in white. Figure bands are separated by broad stripes of brown edged with a line of applied white above and below. On (a), goat to left (part of head wanting); below this, part of another frieze showing the back of another animal (probably a panther) also to left, in bright red varnish. On (b), part of a frieze, perhaps the same as the upper one on (a), showing the hanging head and advanced forefoot of a deer to left and in front of deer the hindquarters and leg and forefeet of a feline animal; fragment extends to lower frieze but no figures show there. Rudeness and inaccuracy of imitation favor Italic origin; cf. MONTELIUS, ii, pl. 323, no. 10. Prov. Veii. A. W. Van Buren, 1905.

310. Oinochoe *a rotelle*. *Rotelle* missing. Ht. 0.237; diam. 0.13. Large dent in each side of the vase, made by handling it while soft. Outside of vase covered with a coat of dull black varnish except for edge of lip, inside of handle, strip around shoulder interrupted by handle-joint and strip around body at base. Strip on shoulder ornamented with three groups of vertical daubs hanging from the neck; three groups of similar daubs radiating from base on strip below. Around body three bands, each consisting of a dark red stripe between two white lines, laid on the black; in the two interspaces incised lacets struck with compasses. The raised band around the base of the neck is marked with white; a white X on the upper handle juncture and one on the body at each side of the lower one.

Cf. MONTELIUS, ii, pl. 264, no. 1; form and decoration precisely similar to *ibid.*, i, pl. 209, no. 17.

311. Oinochoe. Oval body, large end down, small base, strongly flaring neck set off by plastic ring; circular mouth with two small upright disks at a little distance from the handle on each side; handle bipartite. Ht. 0.32; diam. 0.195, mouth 0.16, base 0.093.

Very pale clay with greenish white slip.

Inside of mouth, disks, handle, outside of neck to just below ring, and band around bottom painted brownish black, without lustre, scaly. Three bands of the same color divide body into four fields in which are animal friezes: (1) panther left, head *en face*; winged panther left, crouching; swan left, wing raised; (2) panther left, head *en face*; goat left, winged panther left; head *en face*, hind-legs bent; tree; winged panther to left; (3) goat left; winged panther left; goat left; winged panther left, head *en face*; (4) whole field occupied by a serpent, scales incised. All animals have abnormally long bodies. Wings are all set on behind fore-shoulder. Red retouches usually on head, left fore-leg, right hind-leg, and tail. Outline of body not usually incised; inner incisions very full, but not consistent. Fore and hind shoulder generally outlined. Body of animals sometimes plain, save for two parallel incisions across it, sometimes scale-pattern, sometimes an ornament of two concentric circles, and in case of goats a number of short horizontal lines indicate hair on two of them. Under each animal a three-leaved plant; on each leaf an incised oval, sometimes with a smaller oval or a median line inside it; middle leaf always in dark red. Several times a single leaf occurs between animals and once a five-leaved tree. The ground is sparsely scattered with circular blotches, each with an incised cross.

Style not full Corinthian, but shows influence of Ionic metal work (Regulini-Galassi type). Probably made in Etruria; cf. BÖHLAU, 104. R. Norton, 1906. Mended. One disk and part of lip restored. For animals, cf. BÖHLAU, figs. 51-52; *C.V.A. Musée Scheurleer (La Haye)*, IV C, pl. 2, no. 2.

312. Oinochoe *a rotelle*. Same shape as 311, but slimmer. Ht. 0.30; diam. 0.147. Very pale clay with yellowish slip. One disk and parts of lip restored. Decoration in greenish black, flaky. Neck, back of handle, and inside of lip black; inside the lip a red ring between two white lines. Body is divided into three fields by three bands

of black, on each of which are superimposed two stripes of red, edged with white. Below lowest band, a ring above the foot and another defining its edge. Animal friezes are imitation Corinthian: (1) swan right (wings have a red upper part, and feathers marked alternately red and white); deer (?) to right, grazing (head is shapeless; on body, transverse stripes of red and white; around base of neck a collar of white dots, neck red); (2) panther couchant right, head *en face* (on body red and white stripes and incised lines; fore-shoulder marked with two concentric circles with a row of white dots in the space between them; neck red; face incised; white eyes); swan right as before; panther right as before; (3) four swans right. Field is filled with large regular rosettes of alternating white and red leaves between the animals, and with irregular rosettes and patches of paint, usually cut with incised lines. R. Norton, 1906.

Cf. MONTELIUS, ii, pl. 209, no. 20; BÖHLAU, in *Jahrb.*, xv, 1900, 188, fn. 78.

531. Aryballos, (Pl. 25, Fig. 2), consisting of two truncated cones, the lower inverted, between which two sections of similar surfaces separated by a thin ridge. Ridge at bottom of neck. Slight base. Form may have been suggested by a metal prototype. Ht. 0.07; diam. 0.07, across mouth 0.033.

Light brown clay with thin slip. Decoration in matt brown and purplish red. On mouth, circles around aperture and edge, zone of radiating lines; on handle, transverse lines; on shoulder, tongue pattern, all in brown. Below tongue pattern, two parallel lines in purple, edged with brown, below which row of vertical strokes. Upper section of central part, two brown and two purple parallel lines. Central ridge painted brown. Lower section of central part, row of vertical strokes, slightly longer than those on lower part of shoulder. Lower part of body, tongue pattern edged with band; on slight foot, a band; all in brown.

Cf. *Studi Etruschi*, i, 1927, pl. xxvii, b, 2.

532. Aryballos (Pl. 25, Fig. 3), with plastic grooves. For form see *V.B.A.*, pl. 5, no. 127. Ht. 0.085; diam. 0.058, across mouth 0.032. Buff clay with thin slip; decoration in matt purplish red, in places fired to an orange-red. On mouth, circle around edge from which short strokes are drawn toward center. On handle, two transverse strokes. On shoulder, zone of radiating lines. Grooves alternately painted and unpainted. Each unpainted groove has three groups of short vertical strokes as those on mouth. Radiating tongues on base; line around slight foot. *Cf.* *Not. Scav.*, 1896, 274, fig. 10.

533. Piriform aryballos; flat mouth, short neck, very slight base. Ht. 0.089; diam. 0.063, across mouth 0.041.

Light brown clay with thin slip. Decoration in yellowish-brown varnish and matt purplish red. On mouth, circles around aperture and edge, zone of radiating lines; on handle, transverse lines; on shoulder, tongue pattern, all in varnish. Around greatest diameter a wide band of red, and above it a slightly narrower band, both edged with band of yellowish brown. Diagonal parallel lines of varnish between two bands and band of partly coalescing thin lines of varnish between upper band and tongue pattern on the shoulder.

Cf. MONTELIUS, ii, pl. 241, no. 4; *C.V.A. Copenh. Mus. Nat.*, pl. 94, nos. 16-18 (these, however, have no base ring).

534. Aryballos; form similar to MONTELIUS, ii, pl. 218, no. 8; ridge at bottom of neck and at juncture of shoulder section and rest of body. Ht. 0.081; diam. 0.059, across mouth 0.035.

Yellow clay with thin slip. Decoration in matt purplish red. On mouth circles around aperture and edge, zone of radiating lines; on handle, transverse lines; on shoulder, tongue pattern, below which a wide band. On lower ridge, minute dots. Below ridge three parallel bands, less than half as wide as that on the shoulder.

Cf. *Ann. d. Inst.*, i, 1878, pl. R, no. 3.

535. Aryballos, of form similar to MONTELIUS, ii, pl. 218, no. 8, but with two channels instead of one. Ht. 0.095; diam. 0.067, across mouth 0.042. Clay light brown with slightly reddish yellow slip. Decoration in matt purplish red. Circles inside and around aperture and on edge of mouth, zone of radiating lines; on handle, transverse lines. Around bottom of neck a band, from which tongue pattern; near edge of shoulder a narrow band. On section below shoulder a wide band, a row of short strokes, diagonal from right to left, and a narrow band near edge; on lower part a wide band, below which at a short distance two parallel lines.

536. Alabastron, of form similar to MONTELIUS, ii, pl. 225, no. 6 (*Ann. d. Inst.*, xlix, 1877, pl. UV, no. 4) but longer. Ht. 0.118; diam. 0.049, across mouth 0.029.

Whitish yellow clay with thin slip. Decoration in matt purplish red and greenish black. On mouth three con-

- centric circles, the middle in red ; on handle transverse lines in black. At base of neck black band, on shoulder tongue pattern in black, beneath which three bands, the middle in red. Row of dots in black, beneath which seven bands, alternating black and red. Prov. unknown.
537. Kotyle of Geometric Proto-Corinthian type. Ht. 0.094 ; diam. 0.13. Light buff clay and surface, quite coarse. Decoration in bright red has scaled off in parts. Lower part of cup in solid color ; under handles a narrow band, beneath which a wider. Above handles and on lip, three bands the width of the narrower. On handles and between them, vertical striations. Inside painted red ; a band reserved just under lip. Prov. unknown. For decoration, cf. MONTELIUS, ii, pl. 206, no. 5.
538. Oinochoe, with high handle, trefoil mouth. Ht. max. 0.107 ; diam. 0.075. White clay with pale yellow slip. Decoration in bright red and dark brown, most of which has worn away, so that it is impossible to see design. Cf. *C.V.A. Compiègne*, pl. 2, no. 24.
541. Cylinx, similar in shape and decoration to ALBIZZATI, fasc. 2, pl. 13, no. 139. Ht. 0.095 ; diam. 0.144. Part of one side of lip broken away. Buff clay with very thin slip ; brown varnish with retouches in white and purple. Interior varnished, except for two lines of purple and white at upper and lower edges of lip. On outside of lip, band of varnish, spots of varnish between two bands of dots, and at bottom, line of purple. Between handles on each side, rosettes and swans, but on one side, behind swan a panther. Rosettes have alternate brown and purple petals and white centers. Retouches of purple and white on swans ; incised details. Part of frieze about handles and handles varnished. Alternating bands of purple and white (very narrow) below handles. Lower part of bowl and foot varnished.
542. Kotyle (Pl. 25, Figs. 4, 5). Ht. 0.07 ; diam. 0.086, with handles, 0.125. Yellow clay and slip ; decoration in matt brown and lustrous red. Inside painted red to a depth of 0.025. Outside, around edge, two lines in brown. Between handles, on one side, three, on the other, four dotted rosettes, below which three parallel lines, all in brown ; transverse bands on handles. Animal frieze in lustrous red : boar to left ; lion to right, grappling another animal (paint badly worn) ; deer or other horned animal to right ; lion to left ; large aquatic bird to right. Below frieze, three parallel lines in red. Midway between these lines and foot, a band, probably of brown, edged with red. On foot, red lines. Paint carelessly applied in animal frieze.
565. Pitcher, with flat handle ; upper part of handle and part of mouth with *rotelle* broken away. Ht. 0.28 ; diam. 0.146, across mouth 0.125. Orange colored clay ; decoration in slightly lustrous brownish red and in matt red and white. Around base, calyx of radiating leaves applied directly on clay. Rest of exterior, and about half of interior of mouth covered with varnish, on which decoration is incised and painted in red and white. On neck, dotted rosettes painted in white. On ridge which forms base of neck, series of white dots. On shoulder, incised godroons, red and white. At side of handle, figure S painted in white. In middle of body two zones consisting of a series of incised imbrications, colored red and white. Surface badly worn. Cf. ALBIZZATI, fasc. 2, pl. 16, nos. 177, 179 ; *C.V.A. Copenh. Mus. Nat.*, pl. 95, no. 11.
566. Oinochoe, trefoil lip with divided handle. Ht. 0.23 ; with handle, 0.274 ; diam. 0.203. Pale yellow clay and slip with brown glaze on spout, neck, handle, and foot, and applied purple on figures. On shoulder, zone of aquatic birds (?). Below, separated by a purple band, edged with white, a zone of animals. In field, rosettes. Incised details. Below second zone, two purple bands edged with white, and between these and foot, band in varnish. Most of decoration in front worn away. For shape, cf. *C.V.A. Copenh. Mus. Nat.*, pl. 95, no. 12.
567. Amphora, with wide mouth ; two horizontal handles set just below greatest diameter. Ht. 0.245 ; diam. 0.235, across mouth 0.15. Light yellow clay and slip with decoration in brown and matt purple, retouches in white. Neck covered with varnish ; near lower part a row of white dots, below which band of purple. On shoulder two bands of white dots separated by a band of purple. Below this a band of purple, edged with white. On this band and on a wide one below it, extending almost to handles, incised lacets struck with compasses with white dots in spaces. Handles painted brown, and between handles wavy line in brown, below which two wide bands and lower part of body and foot covered with varnish. For form and decoration, cf. BÖHLAU, 91-93, fig. 45 ; MONTELIUS, ii, pl. 292, no. 14.

568. Amphora-shaped vessel with two suspension handles on each side projecting from mouth (Pl. 26, Fig. 1). Ht. 0.145; diam. 0.16, across mouth, 0.117.
Buff clay with minute glancing spiculae; reddish-yellow slip; decoration in orange-red varnish and purplish red. Neck varnished; incised line running around neck, below which a wavy incised line. Around bottom of neck, purple band edged with incised lines. Shoulder divided into sections by wide vertical bands of varnish and interspaces filled with dots. On widest part of body, three bands of purple edged with incised lines, and two spaces between these bands varnished and having two rows each of wavy incised lines. Below lowest purple band, a band of dots in varnish, below which is a purple band, not edged with incised lines. Similar in technique to ALBIZZATI, fasc. 2, pl. 16, no. 175.
569. Neck-amphora (Pl. 26, Fig. 2). For shape, cf. PAYNE, 300, fig. 137. Ht. 0.185; diam. 0.147, across mouth, 0.08.
Grey clay with cream slip; decoration in lustrous black and matt violet. Mouth, rim, handles, neck all painted black. On shoulder, next to neck, band of violet edged with black. Below handles, wide band of black, between two narrower ones of violet. Row of black dotted rosettes; another band of black between two of violet and another of dotted rosettes. Band of violet, wide band of black, band of violet edged with black, band of black. Foot painted violet edged with black. All these bands are separated by cream slip, which is also the ground of the rosettes.
Cf. *C.V.A. Musée Scheurleer*, IV C, pl. 1, no. 3, which is classed as Italo-Sicyonian or Proto-Corinthian, although it has analogies to Ionic.

IONIC FABRIC.

305. High-footed cup. Foot is hollow and flaring; bottom is rounded; wall is set off from bottom by a slight shoulder and is flaring. Ht. of fragt. 0.096; diam. (base) 0.073.
Clay white, with a smooth slipped surface, on which is linear decoration in lustrous greenish black. Upper surface of foot nearly to bowl solid black; black band on the shoulder and a finer line above it; above this a row of two concentric squares. Inside, the wall is painted black; bottom is left unpainted, save a single circle. Shape, technique, and decoration Ionic; cf. Samian and Naukratite ware with linear decoration. Either imported or imitation.
Prov. Orvieto. A. M. Harmon, 1905.
306. Small alabastron made of warm light brown clay, so soft and friable that dust comes off on the fingers in handling it. For this reason decoration has all perished save a few traces which indicate an area covered with brown dots, bordered by bands of brown above and below. Ht. 0.092; diam. 0.045.
For form and decoration, cf. MONTELIUS, ii, pl. 209, no. 5.

ATTIC BLACK-FIGURED WARE.

313. Fragment of panel of large black-figured amphora or hydria, glued together out of many bits. Ht. 0.165; length (on the curve) 0.31. Amazonomachia. Quadriga to left (only legs and under-body of horses and wheels of chariot are visible); behind horses, body and legs of an Amazon running left (head and breast concealed by horses), short chiton ornamented with groups of three semicircles, incised; sword; exposed parts of body, white. In front of horses another Amazon runs left out of the panel (head, breast, and legs from knee down wanting; sword, spear, corselet, scarf). Red retouches on kilt of chiton. Ground of panel, two black parallel lines; panel framed below by two red stripes superposed on the black.
314. Small black-figured amphora, red body, tripartite handles; pieced together out of many fragments; several large pieces wanting. Ht. 0.228, diam. 0.15.
A. Two groups of Gigantomachia: to left, Athena advances left (high-crested helmet; aegis; round shield with red rim and emblem in white of running wheel; red under-tunic, black border with hooks; black over-tunic ornamented with network of double parallels with X in meshes; border of small circles), about to transfix Encel-

adus, who is sinking back (high-crested helmet; tunic with incised X's in the angles of which white dots); group to right, Poseidon to right (high-crested helmet, red beard, red under-tunic; X's in which are dots on the upper garment, sword at side) transfixes with trident warrior fallen back on shield (outside of shield white; border of zig-zag on tunic).

B. Dionysus seated right on okladias (long red and black tunic, border of loops; ivy-wreath, alternate red and black leaves; red beard; kantharos in left hand, in right vine branches which fill vacant spaces in field); facing him, ithyphallic satyr with horse's feet, blowing double flutes; behind Dionysus a Satyr and a Maenad dancing right. On neck double palmette pattern, on shoulder tongue-pattern, palmettes and lotos under handles, band of lotos-buds under designs, and above foot rays shooting upwards. Charles Coll. (1).

For side B, cf. *C.V.A. Br. Mus.*, III H e, pl. 35, no. 4 b; pl. 42, no. 2 b; pl. 46, no. 1 b; *ibid.*, *Louvre*, III H e, pl. 4, no. 5.

315. Three fragments of a cylix of the *Kleinmeister* type, with *évasé* rim. Diam. ca. 0.24 (estimated). Inside varnished except a line on the edge of the lip. Outside, two reserved bands; in the wider one, interrupted by the handles, is a small figure-frieze, carelessly executed, representing Satyrs and Maenads dancing. On each side of each handle was a small palmette. Retouches in red and white; the arms of the Maenad are painted white laid directly on the background. The varnish is greenish-black, iridescent. Charles Coll. Cf. *C.V.A. Brux. Cinqu.*, III H e, pl. 2, no. 2 b; ALBIZZATI, fasc. 4, pl. 36, no. 330.
316. Foot and center of bowl of cylix. Shape, somewhat steeply curving sides rising from very short, somewhat thick cylindrical stem; base flat above, thick, with a hollow beneath, which runs up into stem. Ca. 0.087×0.102 ; diam. of medallion, ca. 0.052. Edge and bottom of foot red; sides of hollow black; top red. Outside of bowl, stem, and upper side of foot black. Inside, reserved medallion in which is lion to right standing, with paw raised; tongue hanging out of open mouth; tail curved over back. Incised details but no outlines, tongue red on clay ground, red patch on breast and traces of red line defining belly. Black varnish has been turned orange red by firing, in a great patch on body, one on neck, and one on cheek, muzzle, and fore-paws. Where this red is cut by incised lines, margin of cut is black. Varnished part of interior of bowl has also turned in large part to a similar red. Charles Coll. (8).
317. Fragment of bowl of an *Augenschale*, rimless, shallow. Fragment extends from lip to somewhat beyond center and includes one handle-attachment with part of handle. Foot with stem broken away from bowl in ancient times, leaving a round hole in bottom, ca. 0.034 in diam., around which the bowl is pierced by four holes for the wire with which it was mended. Diam. of bowl, ca. 0.22. Small unvarnished circle within; outside unvarnished except handles and two concentric bands around foot-juncture, one broad, one narrower. Faint line in thin brown surrounds bowl just below lip. Back of handles black. Under handles, large lotos, inverted (?). On side, naked man left, left foot advanced, looking back and stretching left arm back, right arm raised in front, bent at elbow so that hand with outstretched fingers appears in front of chest, palm downward; incised details. On either side of him, great eye. Eye first made in solid black. Within it three concentric circles incised with compasses. Red dot marks center, inner circle left black, second red, third black, space between third and edge of silhouette is then covered with white, which does not quite extend to edge, leaving black outline showing. Brow black. Charles Coll. (32). Cf. *C.V.A. Copenh. Mus. Nat.*, pl. 115, no. 3 b (but figure here to right). For design under handle, cf. *ibid.*, *Br. Mus.*, III H e, pl. 22, no. 1 b.
318. Deep rimless cylix with low hollow foot. (Pl. 27, Fig. 1). The very short stem flares gradually into foot proper. Ht. 0.084; diam. 0.195, over handles 0.251. Within, narrow reserved line on edge of lip; medallion in center within which a small circle with dot in center. Outside, band reserved for figures, interrupted by handles, and a narrow band below it. Edge and under surface of foot red, interior of hollow black, except grooved ring dividing sides from bottom of hollow and small circle on bottom of hollow where there was once probably a thorn. Handles black on back, and from them on the frieze a palmette to each side, red center and alternate red and black leaves. Between palmettes on both sides a man seated on box to right, wrapped in himation, head thrown forward (hair and beard red, red retouches

- and groups of three white dots on his himation). Before and behind him, a Pegasos, facing him, rearing on hind legs (white mane and tail, red and white retouches on wings), bridled. Carelessly executed. Put together out of many pieces; small triangular fragment lacking in bottom. Orange-yellow clay. Prov. Orvieto. Charles Coll. (11).
319. Cylinx of developed late form. Ht. 0.075; diam. 0.197.
Within, in a medallion, naked youth running right with a mantle over his outstretched left arm; sword; trace of a white line across his breast (sword-belt?). Figure is surrounded by three concentric circles in thinned varnish. Outside, in a wide reserved band, a dance of Satyrs and Maenads, both sides being very nearly alike and consisting of a group on the left of a Satyr and a Maenad, and one on the right of a Maenad between two Satyrs. Satyrs have red garlands in their hair, red beards and tails and carry white wreaths. Maenads wear red garlands, have red dots on their dresses and carry wreaths that are white or black, according to the background. In the field, rudely drawn sprays of vine with clusters; sprays cut figures. Under each handle a dolphin. Frieze limited by one line in thinned varnish above and three below. Below it a narrow reserved stripe. Very careless drawing; late. Brought to Rome, 1903, and presented by James Loeb.
For interior medallion, cf. *C.V.A. Br. Mus.*, III H e, pl. 22, no. 7 a; for design of Maenad between two Satyrs (on side where Satyrs face Maenad) and dolphins under handles, cf. *ibid.*, no. 3 b.
320. Small cylinx with low foot. (Pl. 27, Fig. 2.) Ht. 0.056; diam. 0.162.
Clay is more brown than Attic. Outside of cup, excepting inside of the handle and the space between the handle joints, completely covered with highly lustrous but flaky varnish, so irregularly laid on and fired that it varies from greenish black to red and brown. Whole interior covered with thin slip (visible especially between the figures) which is slightly redder than the clay, and bears the representation of two Satyrs, as large as the flatter part of the bowl permits of, dancing away from one another to right and left, each with left leg raised and head turned backwards. Few incised inner details; no contours, and no applied colors. No exergue. The cup belongs to a small group that shows a mixture of Ionic and Attic traditions. Place of manufacture uncertain, but it was probably Tarquinii. Bought in Rome, 1905, A. M. Harmon.
Large piece of one side missing, including the handle; was formerly very cleverly restored, but the restored part and most of the repainting have been removed.
504. Fragment of *Kleinmeister* cylinx. L. 0.072; ht. 0.057.
Black within and outside of rim; below rim a reserved band, and below this a black stripe. In the reserved band, lion to right, and part of uncertain animal (hare or boar?) to left. No incisions.
Cf. *C.V.A. Br. Mus.*, III H e, pl. 15, no. 2; *ibid.*, *Louvre*, III H e, pl. 5, no. 2; especially pl. 43, nos. 4 and 5 (lion and boar, and probably also a boar on no. 504).
505. Center of bowl of low-footed cylinx. Foot broken away; three holes are pierced through the flange that remains, probably indicating an antique mend. Diam. 0.071.
In the interior, a Gorgoneion, tongue red; teeth and tusks once white. Incised on bottom, an X. Charles Coll. (2).
Cf. *C.V.A. Br. Mus.*, III H e, pl. 19, nos. 1 a and 2 a; pl. 20, nos. 1 a and 2 a; pl. 22, nos. 1 a and 6 a; *ibid.*, *Compiègne*, pl. 11, nos. 2, 5, 10, 12, 14; *Copenh. Mus. Nat.*, pl. 113, no. 2; *Musée Scheurleer*, III H e, pl. 2, nos. 2 and 3; *ibid.*, *Villa Giulia* III H e, pl. 37, nos. 4 and 5; pl. 42, no. 3.
506. Part of shoulder of small amphora. Length, 0.099.
Around base of neck, tongue pattern, tongues alternately black and red; fragmentary picture shows a man seated left, left hand resting on stick and right plucking beard, watching two dancers. First dancer, to left, with head to right, has right hand on top of head and left on hip; the second, to right, raises finger-tips of one hand to forehead. Lower parts of all figures missing. Execution careless; few incised details and those ragged. Probably made in Italy.
508. Six fragments of black-figured Attic; two handles.
Two fragments have retouches in white.
On one fragment, part of an inscription ... VΣ, on another, letters EPI.
547. Black-figured amphora, bipartite handles. Ht. 0.266; diam. 0.149, across mouth, 0.117.

Designs in panels. On each side of neck three palmettes, the one in the center turned upside down.

A. Dionysus, clad in chiton and himation, seated on an okladias with legs ending in lions' paws, and holding in left hand a kantharos; in front of him a Maenad clad in full mantle, about to dance. In field, a vine. Nude parts of woman and nails of okladias in white.

B. Two other Maenads dancing. On their mantles reddish-violet dots. Between them a tree, and in field large white dots. Nude parts of Maenads white.

Incised details on both panels.

Purple band surrounding vase at bottom of panels and at juncture of body and foot.

Cf. C.V.A. Villa Giulia, III H e, pl. 19, nos. 4, 5.

548. Fragment of panel of large black-figured amphora or hydria.

Dimensions 0.112×0.104.

Helmeted warrior advancing against another with spear raised; only upper part of body preserved. Behind warrior the hand of a third figure painted in white. White circles on warrior's shield, and sword-belt in white. Incised details, carefully executed. Prov. necropolis of Ferentum.

Complete scene probably similar to that of *C.V.A. Brux. Cinqu.* III H e, pl. 9, no. 3 a.

549. Fragment of the rim of a crater with column handles. Diam. ca. 0.28. Upper side of rim decorated with a crown of stylized lotos-buds with dots. Outer side of rim decorated with stylized ivy branch. On handles palmettes and spirals. Neck and sides of handles varnished black.

Cf. C.V.A. Louvre, III I d, pl. 27, nos. 2, 10; pl. 28, no. 4; pl. 25, no. 8; pl. 29, no. 5; *ibid.*, *Villa Giulia*, III H e, pl. 52, no. 5.

550. Fragment from lower part of side of large black-figured hydria.

Dimensions 0.17×0.105.

Most of fragment consists of lower zone which was covered with black glaze; above this two narrow bands in red. Small bit of scene on one panel extant: struggle of Herakles and Triton. Fragment shows lower part of a coil of the Triton and a part of the lion's skin. Incised details; lower edge of coil in white.

Cf. C.V.A. Br. Mus. III H e, pl. 40, no. 1 a; *Compiègne*, pl. 7, no. 8; *Louvre*, III H e, pl. 68, nos. 1, 2, 4; pl. 63, nos. 1, 2; pl. 67, nos. 4-6; pl. 72, no. 2.

- 551, 552. Fragments of two cylices of the *Kleinmeister* type, with *évasé* rims. 551, 0.045×0.072; 552, 0.065×0.04.

Inside varnished, except a line on the edge of the lip of 551, and a narrow reserved band in 552. Both fragments show one small palmette which was beside the handle. Incised details and retouches in red.

Cf. C.V.A. Br. Mus., III H e, pl. 15, nos. 2, 5, 6, 8, 9; pl. 16, nos. 3, 4.

553. Two connecting fragments from lower part of side of a black-figured vase.

Part of lower zone of vessel, which was covered with black glaze and edged with two narrow bands in red.

Above this, small bit of scene of one panel extant; right foot of person moving to right, behind which lower part of garment and two feet (?) of another person to right. Both figures standing on red line. Incised details and retouches in red.

- 554-559. Six fragments of black-figure Attic. On all the fragments, incised details.

555. Legs of four (?) horses; *cf. C.V.A. Brux. Cinqu.*, III H e, pl. 6, no. 2 a; *Villa Giulia*, III H e, pl. 1, no. 4; pl. 5, no. 1.

556. Lower part of cloak and leg of warrior advancing to right; retouches of red on cloak and greaves.

557. Head of helmeted warrior; crest of helmet in white.

558. Bit of breast and upper part of outstretched left arm; nude parts in white.

559. Volutes and palmettes in black.

560. Two fragments of bowl of an *Augenschale*, rimless, shallow. Bit of foot with plastic juncture attached to one fragment. Diam. of bowl, ca. 0.23.

Inside varnished, except a small circle and a line on edge of lip. Outside unvarnished except two concentric bands around foot juncture, one broad, one narrower and line on edge of lip and another a short distance below edge. Three fine lines in thin brown above the narrower band around the foot juncture. Foot varnished, juncture painted reddish violet. On side floral design — large lotos inverted (?).

On either side of design, great eye. Eye first made in solid black. Within it three concentric circles incised with compasses. Purplish red dot marks center, inner circle left black, second purplish red, third black, space between third and edge of silhouette is covered with white. Brow black.

572. Lower part of black-figured vase, probably lekythos or small amphora.

Ht. of fragment 0.063 ; diam. of base 0.055.

Lower part of body and base covered with varnish. In panel, figure advancing to left, only one foot extant.

ATTIC RED-FIGURED WARE.

322. Large part of bowl of red-figured cylix, put together out of many pieces. (Pl. 28, Fig. 1.) Great part of each side and foot missing. Diam. (over handles) 0.315.

I. Interior scene complete, except for slight break in exergue. Symposium of Satyr and Maenad. On couch, represented by straight line cutting off not quite half of medallion, and another straight line below cutting off small exergue, are lying a Satyr (partly bald, bearded, naked to waist) and a Maenad (chiton with fine folds, himation, hair covered with close cap). Satyr rests left elbow on two cushions ornamented with heavy stripes, fine stripes, and dots, and puts right hand on shoulder of Maenad. His lower body and legs are behind Maenad and the two cushions upon which she rests her left elbow. Maenad turns toward Satyr, with her right hand on her right knee, which is somewhat drawn up, and her left hand open as if gesticulating. In the background behind her knees rises a thyrso. In front of couch, table, represented by black oblong resting on exergue and fine line parallel to edges of oblong. On this table two shallow phialai, upside down, ornamented with lines from center to rim, two fillets, hanging over front edge of table, and a looped line of which the meaning is not clear. Around design, maeander of two elements hooking into one another, which is interrupted by reserved Maltese crosses with plain black cross in center.

Exterior : A. Seated boy to right, holding staff in left hand, his right hand extended, on his knees, palm upward to receive a strigil which is being handed to him by another mantled figure, facing left, face missing. Further to right another mantled figure, body to front (left foot in profile), face turned left, holding a staff in his left hand, and raising his right towards the others. Both remaining heads show white fillets.

B. Two mantled figures facing each other, a third between them. Figure in middle is all broken away except heel of one foot. Upper part of figure on right is also missing; held staff and right foot advanced. Youth on left nearly complete, but hands, which were extended, are wanting; left foot advanced and faded white fillet in hair. Under handles, palmette of nine leaves growing out of two volutes, each of which rises nearly to rim of bowl and descends again in a narrow loop to about the middle of frieze, where it turns again upward and ends in volute calyx from which grows an eleven-leaved palmette; leaves of palmettes have rounded ends.

Late strong style : inner corner of eye is open, hair is bounded by a reserved line and its lower edge is marked with a fringe of dots or short lines, chin is heavy and rounded, with accentuated lower lip. Relief lines mark details.

323. Small aryballos-lekythos of imitation red-figured ware. Flat ellipsoid body on base ring, high flaring neck, flat lip. Ht. 0.093 ; diam. 0.047, across mouth 0.039.

Only decoration is a reserved palmette on the front of the body. Clay is nearly white and was tinted red in the reserved parts. Varnish is lustrous but greenish and flaky.

Probably south-Italian, but similar technique occurs on Greek vases, *i. e.* kotylai, Nat. Mus. Athens, 1405 and 1412 from Locris.

324. Two-handled kantharos, one handle and part of side between handle junctures missing. Form, BRUNN-LAU, *Die Griechischen Vasen*, pl. 44, nos. 3, 3 a but more flaring. Ht. 0.108 ; diam. 0.116.

Clay reddish brown, baked very hard. Whole of interior and most of exterior, except a panel on each side, covered with waxy red-brown varnish changing to greenish black about upper joint of one handle. Square panels of ornament alike on both sides. At the top, under the lip, and at the bottom, on the shoulder, a row of vertical dashes, each with a dot beneath it, and the space between the shoulder and the lip is divided between two designs : (1) above, a diagonal checker pattern of which alternate rhombs are saved out ; within each reserved

diamond is a diamond outlined in varnish, with its center dotted, and within each solid diamond the same design in applied white; (2) a varnished strip bearing a horizontal wreath of laurel leaves and berries in applied white. Around the under body of the bowl ran a line in applied white. Underneath, the convex disk within the base-ring is unvarnished and shows a dotted circle in varnish. Almost all the white has vanished, but the place it occupied is revealed by reflection. The color of the varnish is accidental; the fabric of these clearly-defined vases, including the *Schuppenbecher*, is now recognised as Attic, ca. 450 B. C., not Italic as some had thought. See P. JACOBSTHAL and A. LANGSDORFF, *Die Bronzeschnabelkannen*, Berlin, 1929, 62 f.; for older views, cf. *Mon. Ant.*, xiv, 1904, 943, fn. 2.

Specimens of the fabric have been found in Greece, Italy, Sicily, France and Germany.

Cf. *Ath. Mitt.*, xiii, 1888, 414; especially *Mon. Ant.*, x, 1901, 59-60, and pl. 5, no. 10, and xiv, 1904, 915, fig. 112, to which 324 is closely similar; also *C.V.A. Br. Mus.*, III I c, pl. 32, no. 16 (Attic red-figured, on black background).

546. Oinochoe with trefoil lip. Ht. 0.195; diam. 0.137.

Light brown clay. Exterior, except base, and inner part of lip entirely covered with metallic black glaze in part over-fired to red. No other decoration.

Cf. *C.V.A. Oxford*, III I, pl. 48, no. 16.

561. Two fragments of one side of the bowl of a red-figured cylix. (Pl. 28, Fig. 2.)

Diam. ca. 0.34.

Interior varnished, except saved-out band just below edge. Edge varnished. On outside, a reserved band just below edge. Scene of youths leading horses; fragments include three youths and two horses. Below scene a band of enclosed palmettes, alternately upright and inverted. Severe style. Ancient repairs.

562-564. Fragments from three red-figured vases, found at Orvieto. (Pl. 29, Fig. 1.)

562. In three fragments. *Évasé* rim of cylix and bit of scene below showing a Silenus with outstretched right arm.

563. Youth on far side of cow (?) to left.

564. Fragment from rim of vessel. Woman, clad in transparent undergarment and cloak, facing left, holding in left hand an alabastron. To left of woman probably a figure leaning on a staff; to the right, a palmette.

Cf. *C.V.A. Br. Mus.* III, I c, pl. 34, no. 3 b.

573-578. Six fragments of red-figured Attic.

573, 574. (Pl. 29, Fig. 1.) In late fine style; fragments show upper part of bearded men.

573, from cylix; maeander and cross border on both exterior and interior; man in interior medallion to right holding object (purse?) in right hand; feet and skirt of woman to left on exterior.

575. Part of an outstretched right arm.

576, 577. Remains of palmettes and spirals.

578. Foot to the left, beyond hoop (?).

579. Two fragments, one including a handle, of red-figured kotyle, of type known as *γλαῦκες* or «owl-vases». Diam. ca. 0.09.

Horizontal handle with laurel branch on each side. About one-third of the owl on one side extant.

This type of vase found in Attica, cf. *C.V.A. Br. Mus.*, III I c, pl. 32, nos. 1-10; *ibid.*, *Gallatin Collection*, pl. 26, no. 12; *ibid.*, *Oxford*, III I, pl. 48, no. 9 (where hor. and vert. handles); but also classified under Italic wares, cf. *ibid.*, *Lecce, Museo Provinciale*, IV D i, pl. 56, nos. 6, 7.

579 probably an Italic imitation.

ATTIC WHITE-GROUND WARE.

507. Seven fragments of white-ground Attic ware, of which one comes from a black-figured vase, and the rest probably from a single polychrome lekythos. (Pl. 29, Fig. 2.) Very little of the representation preserved. Female figure clad in long purple garment, hair over right arm and left hand raised. Lyre (?) or chair (?).

For decorative band on large fragment, cf. *C.V.A. Brux. Cinqu.*, III J b, pl. 2, no. 4; *ibid.*, *Musée Scheurleer*, pl. 2, no. 2.

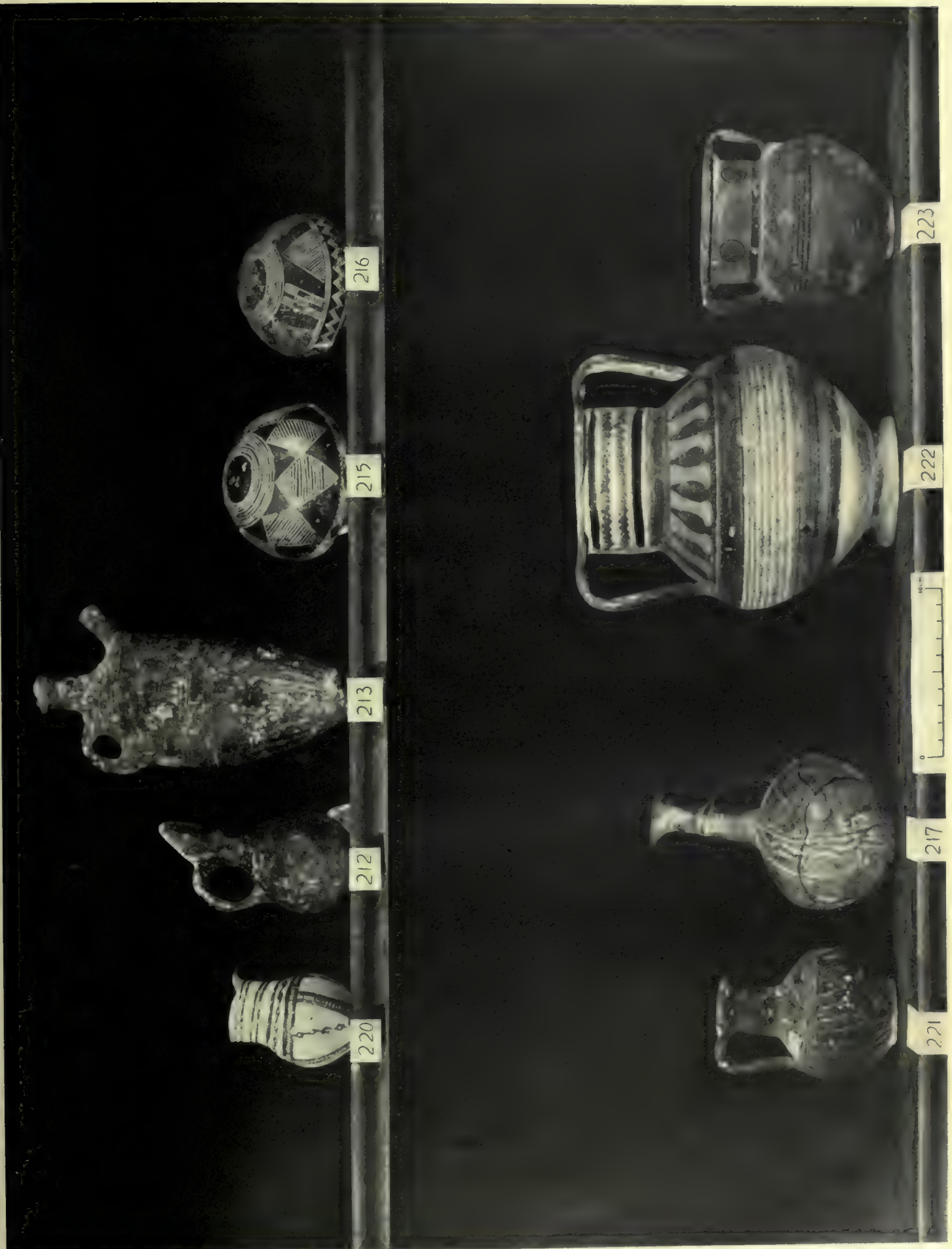
321. Forged B.-f. panel hydria, broken into many pieces. Ht. (without handles) 0.415.

Clay dark brick red in the interior, outer surface is a good but somewhat streaky imitation of the usual Attic color. Varnish fairly well imitated but somewhat dull. Main panel derived from the hydria GERHARDT, *Auserlesene Griechische Vasenbilder*, pl. 40; the shoulder scene from another hydria (*ibid.*, pl. 308), both from the Feoli collection and now in Würzburg. Shoulder scene (Herakles and the Nemean lion) is simplified by the omission of the female figure behind Athena and there are several slight variations; Athena (without aegis) advances left with raised shield; the hanging cloak is omitted and to the left of the quiver are two mace-like objects (swords?) crossed; Iolaus has a sword and stands with the club of Herakles partly raised in his right hand and with his left extended. The only essential change in the body panel (ΔΕΜΕΤΕΡ mounting her quadriga, attended by Apollo, Artemis, and Hermes) is in the omission of the female figure beside Hermes.

For the shoulder scene, cf. also *C.V.A. Villa Giulia*, III He, pl. 10, nos. 1-2.

From Naples, presented by Dr. Arthur Mahler, ca. 1903.



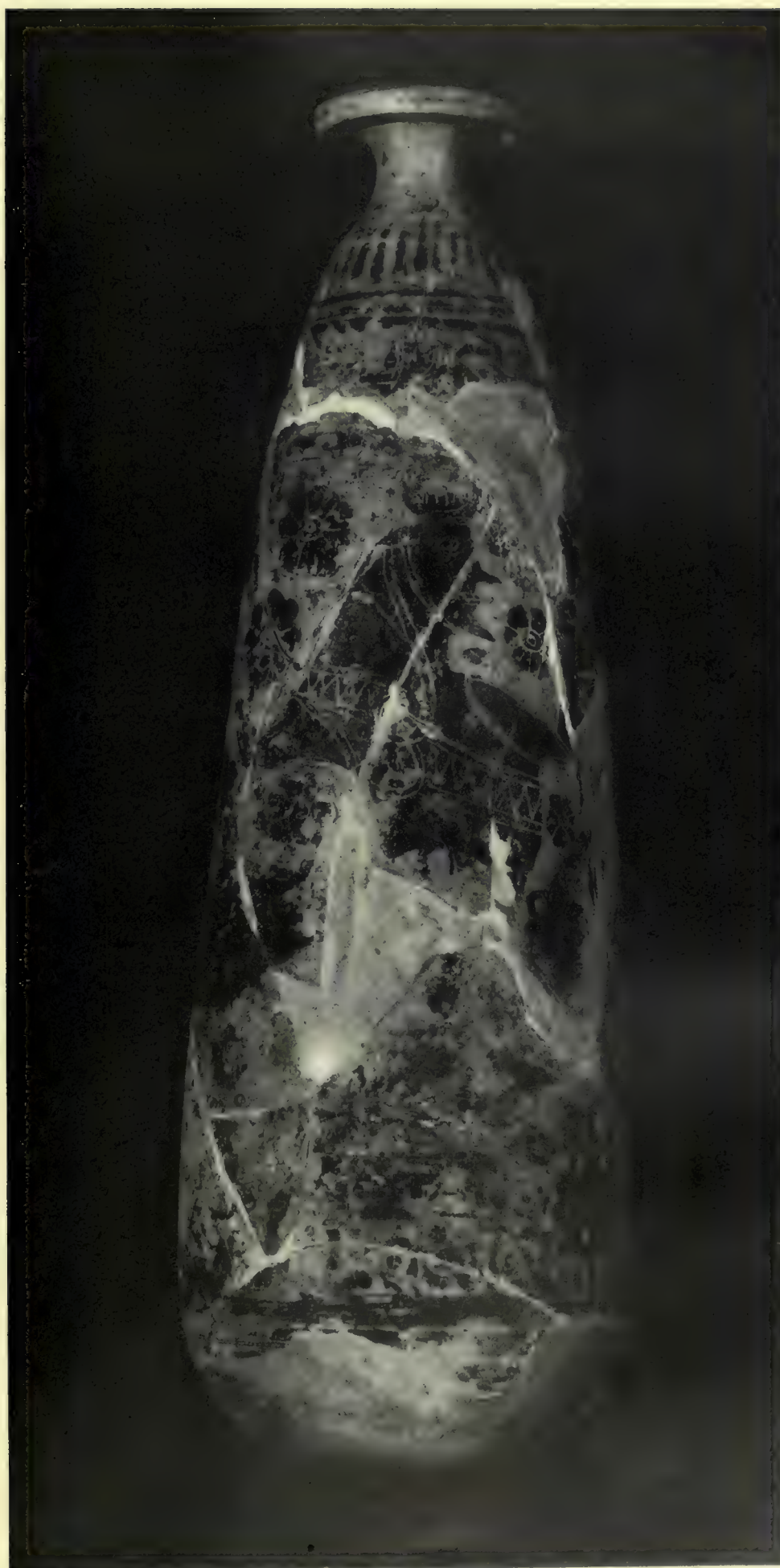


Pottery of Cyprus.

AMERICAN ACADEMY IN ROME.

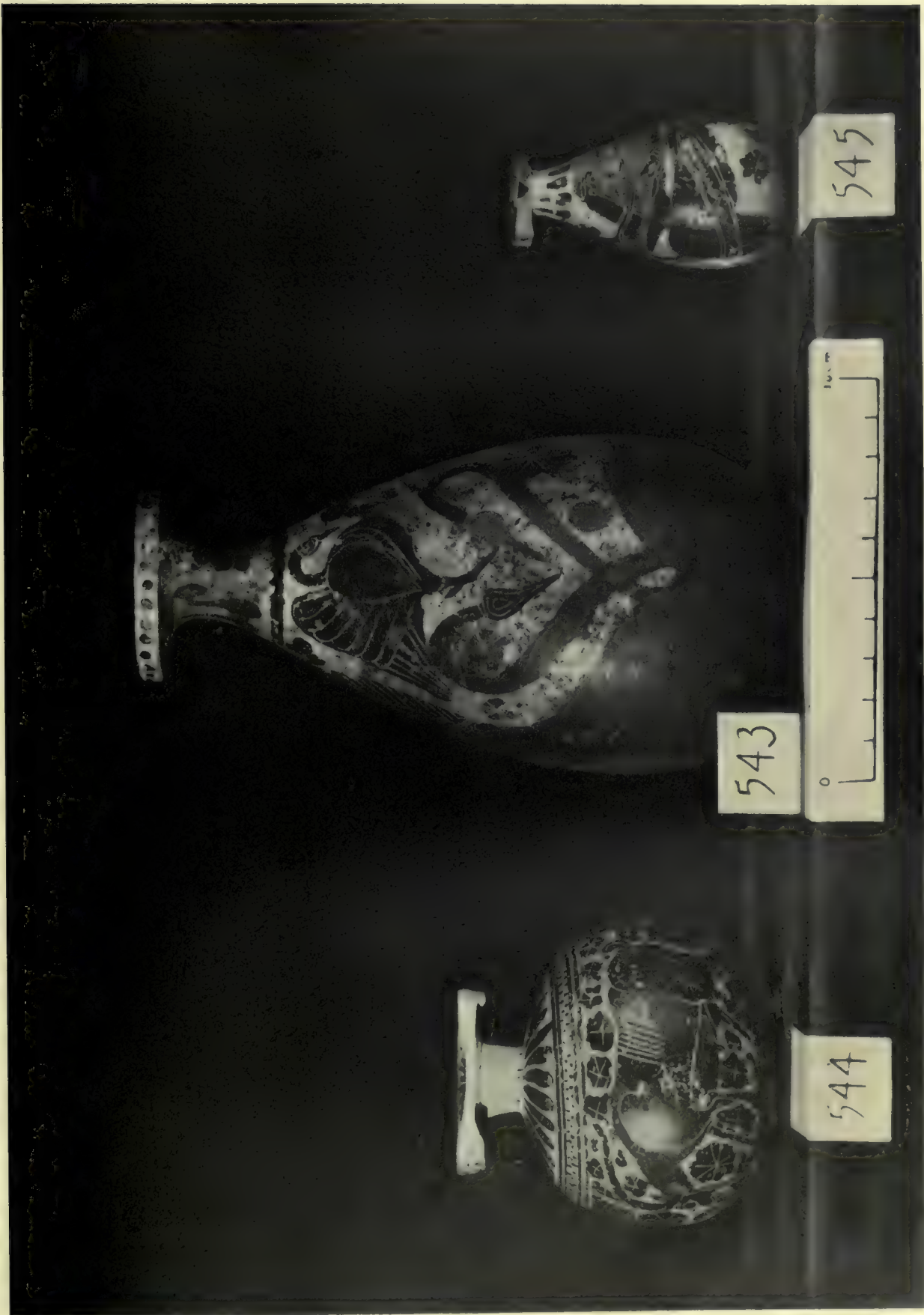


Cycladic and Mycenaean Vases.
AMERICAN ACADEMY IN ROME.



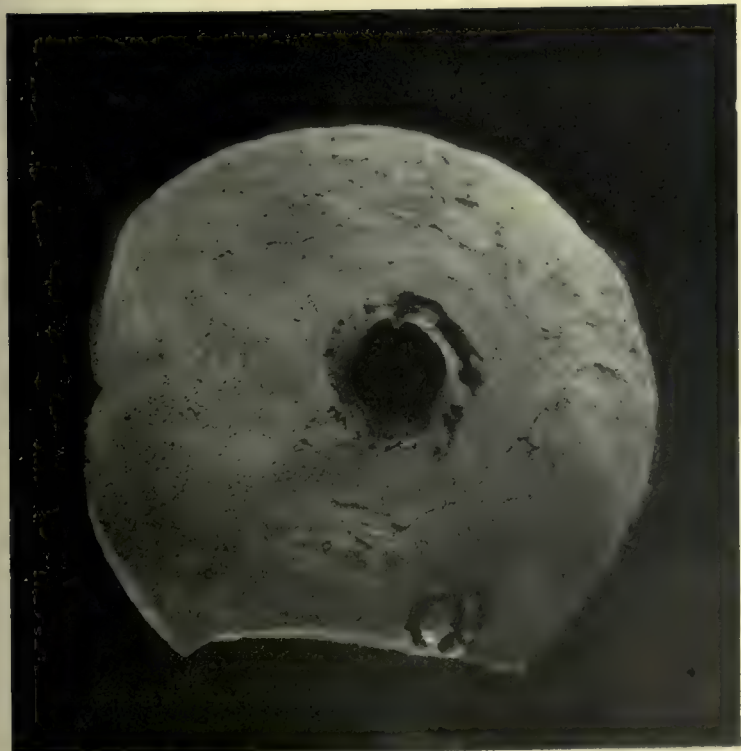
Corinthian Alabastron (307).

(Scale ca. 1 : 2)



Corinthian Vases.

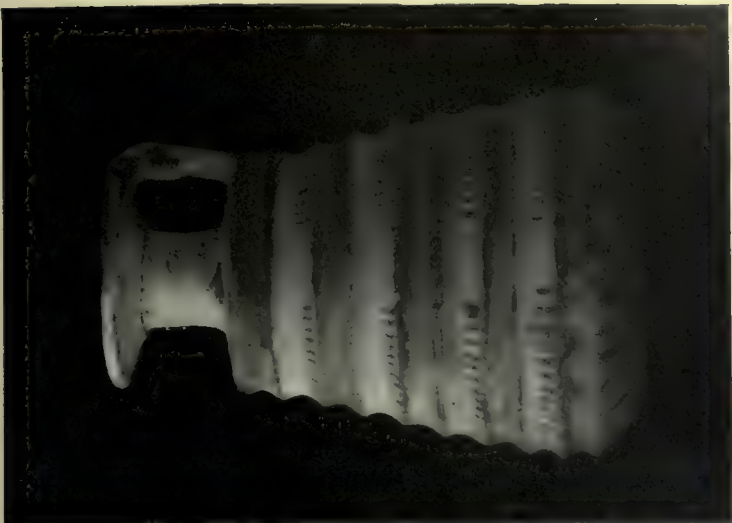
AMERICAN ACADEMY IN ROME.



1. View of Interior of 217.
(Scale ca. 3 : 4)



2. Italo-Corinthian Aryballos (531).
(Scale ca. 7 : 8)



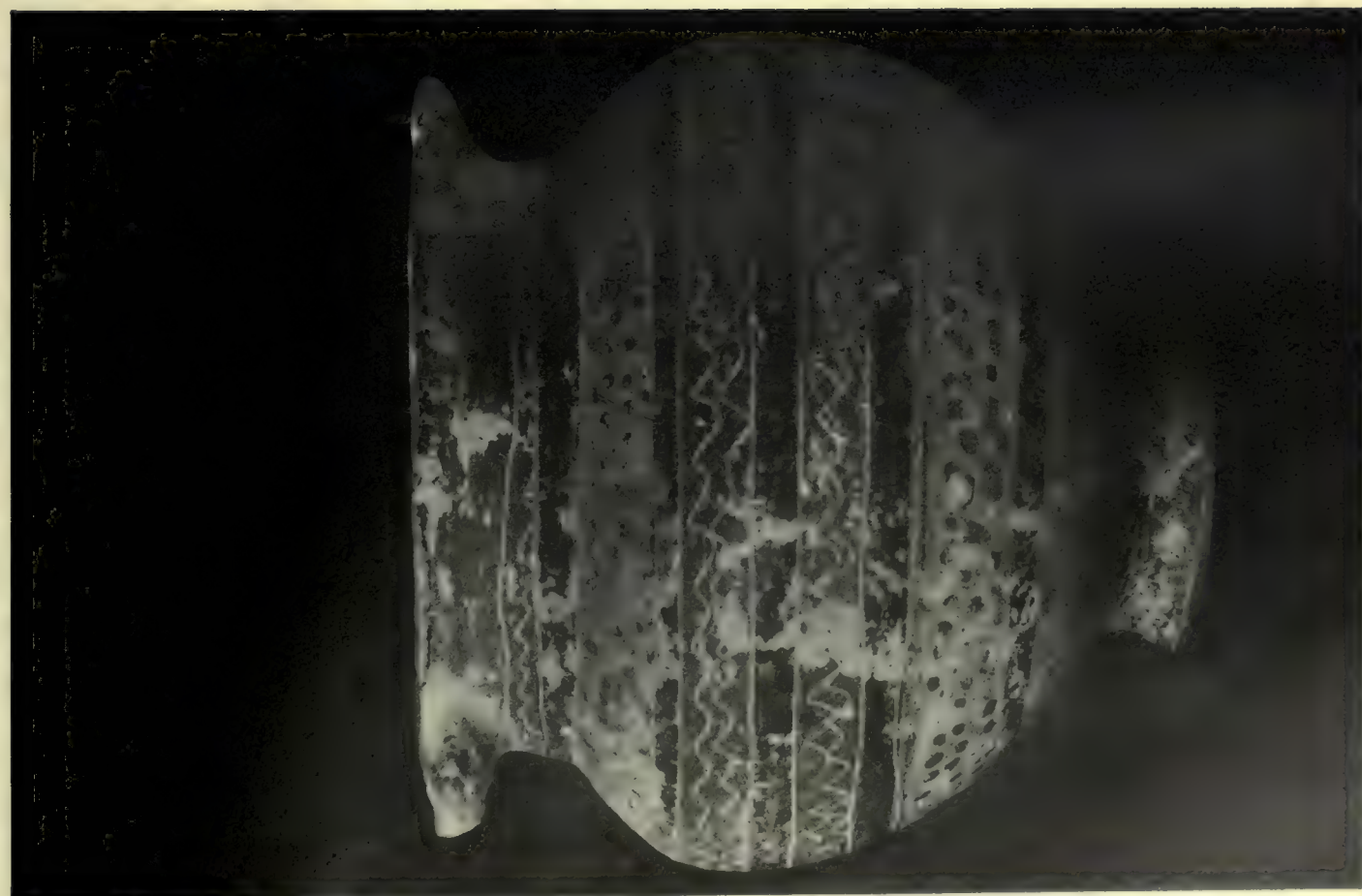
3. Italo-Corinthian Aryballos (532).
(Scale ca. 7 : 8)



4. Italo-Corinthian Kotyle (542).
(Scale ca. 5 : 7)



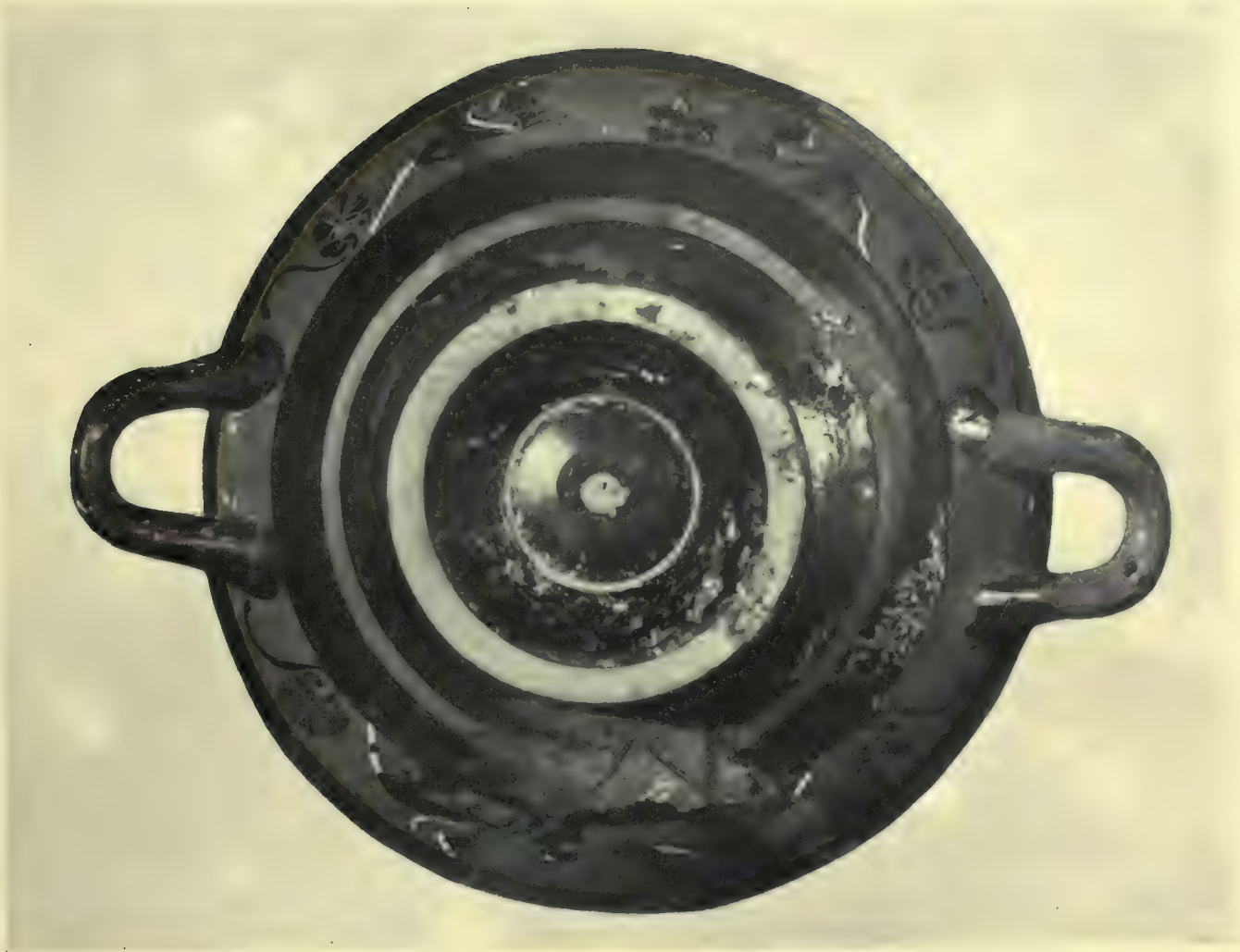
5. Italo-Corinthian Kotyle (542).
(Scale ca. 5 : 7)



1. Italo-Corinthian Amphora (568).
(Scale ca. 6 : 7).



2. Italo-Corinthian Amphora (569).
(Scale ca. 5 : 6).



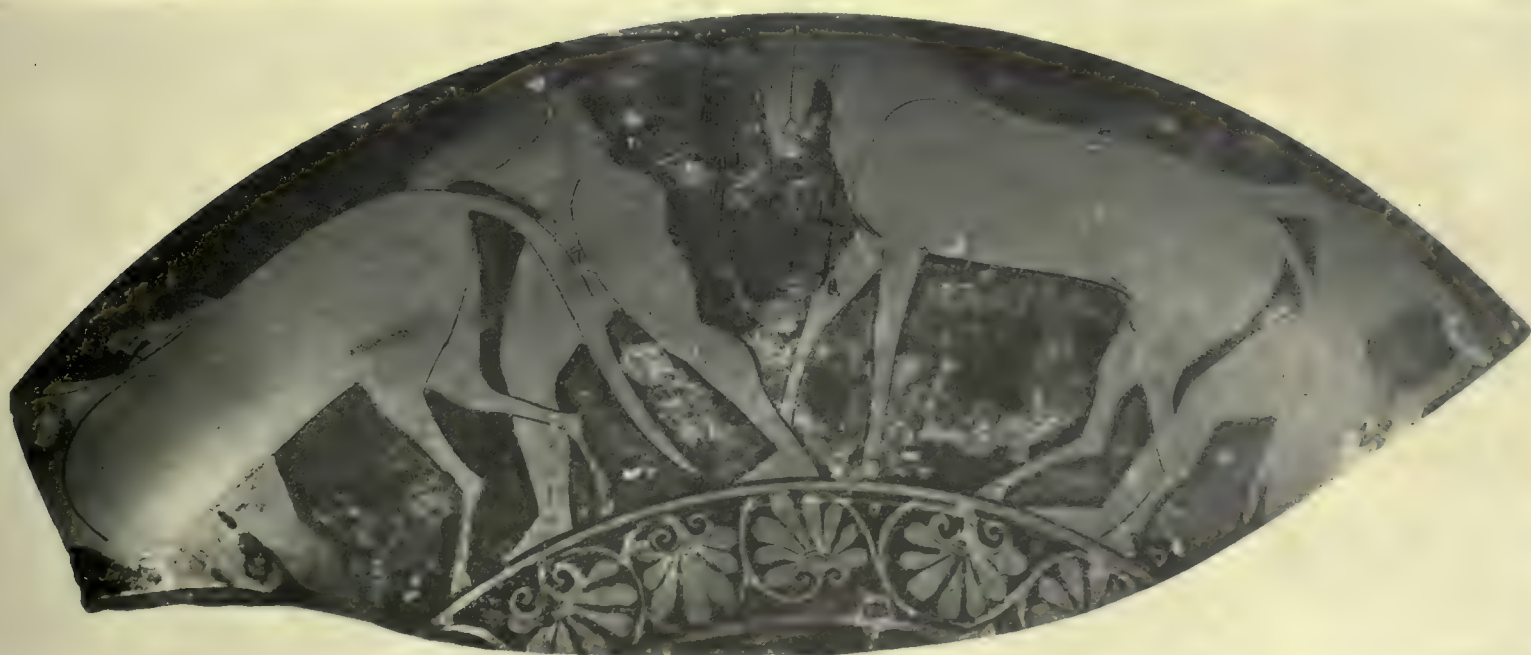
1. Black-figured Cylix (318).
(Scale ca. 4 : 5).



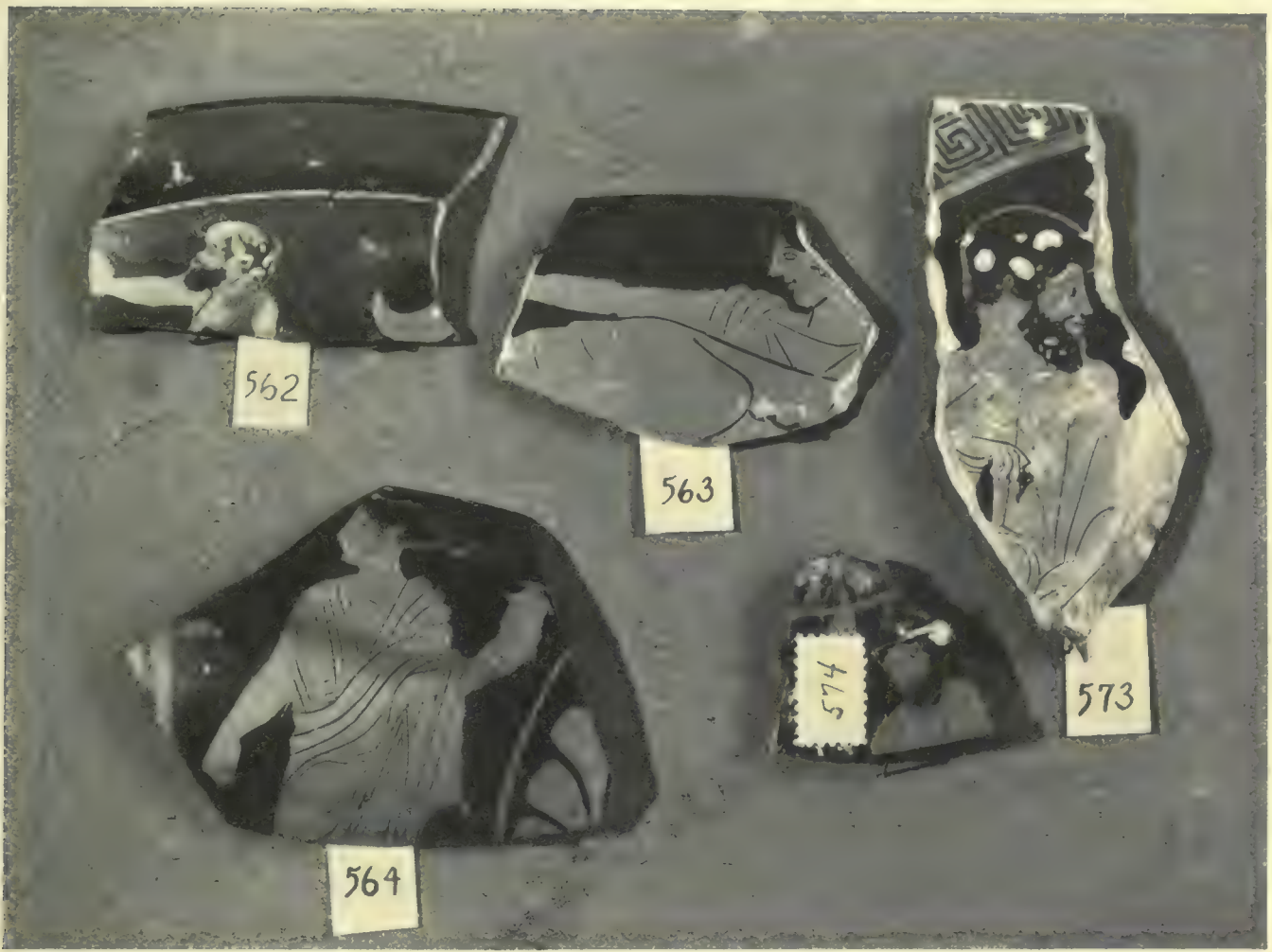
2. Black-figured Cylix (320).
(Scale 5 : 8).



1. Red-figured Cylix (322).
(Scale ca. 2 : 3)



2. Red-figured Cylix (561).
(Scale ca. 3 : 4).



1. Red-figured Fragments.
(Scale 7 : 8).



2. Fragments of White-ground Ware (507).
(Scale 7 : 8).



ROMAN BATH AT LEPTIS MAGNA.

ARCHITECTURAL RESTORATION BY GEORGE FRASER; TEXT BY ALBERT W. VAN BUREN.

(FRONTISPIECE, PLATES 30-33).¹

ONE of the outstanding developments of the past twenty years in the world of archaeology has been the opening to scientific research of the ancient cities of the Tripolitania.² In this sandy region, sparsely inhabited ever since the close of the Roman period, the circumstances in which the remains were buried and preserved have provided abundant material for the enlightened labors of the Italian archaeological service. Nowhere within the circuit of the Mediterranean lands can one trace with a greater sense of reality *Romanos rerum dominos gentemque togatam*.

Of the three famous cities of the Tripolitan coast, Sabrata, Oea and Leptis Magna, the last-named claims preëminence by virtue of its favored geographical position, its bestowal upon the empire of a strong ruler, Lucius Septimius Severus, and the extent, splendor and preservation of its monumental remains.³ A special feature of this place consists in a splendid bath structure, which under the able direction of DR. RENATO BARTOCCINI has now been liberated from its deep covering of sand and has received the reinforcement and reconstruction essential for its preservation. With a liberality which is herewith gratefully acknowledged, Dr. Bartoccini, in 1927, granted Mr. Fraser, Fellow in Architecture at the

¹ The text of this article was prepared by Albert W. Van Buren, the Editor of Publications, after Mr. Fraser's return from Rome to America.

² R. BARTOCCINI, *Rinvenimenti vari di interesse archeologico in Tripolitania (1920-1925)*, in *Africa Italiana*, i, 1927, 213-248; G. CALZA, *Sabratha and Leptis Magna*, in *Art and Archaeology*, xx, 1925, 211-221; F. NOACK, *Archäologische Entdeckungen in Tripolitaniën*, in *Die Antike*, i, 1925, 204-212; R. PARIBENI, *Gli Scavi di Leptis Magna e di Sabratha*, in *Dedalo*, v, 1924-1925, 665-688; all these four articles are well illustrated. Also, *Guida d'Italia del Touring Club Italiano, Possedimenti e Colonie*, Milan, 1929, 169-396; BARTOCCINI, *Le Antichità della Tripolitania*, Milan, 1926.

³ H. DESSAU, s. v., in PAULY-WISSOWA, *Real-Ency-*

clopädie, xii, 2074-2076; P. ROMANELLI, *Leptis Magna* («*Africa Italiana*», *Collezione di Monografie a cura del Ministero delle Colonie*, i), Rome (1925); *Guida d'Italia*, loc. cit., 365-376; ROMANELLI, «*Il Porto di L. M.*», in *Atti d. Pontif. Accad. Rom. di Archeol.*, Ser. iii, Rendiconti, ii, 1924, 93-105; BARTOCCINI, «*Il Foro Imperiale di Lepcis (Leptis Magna)*», in *Africa Italiana*, i, 1927, 53-74; ii, 1928-1929, 30-49; ID., *Guida di Lepcis (Leptis Magna)*, Rome-Milan, 1927; G. GUIDI, «*La Data di Costruzione della Basilica di L. M.*», in *Africa Italiana*, ii, 1928-1929, 231-245; S. AURIGEMMA, «*Mosaici di L. M.*», *ibid.*, 246-261. Fuller bibliographies in ROMANELLI, *op. cit.*, page viii, and *Katalog des Deutschen Arch. Inst. in Rom*, ii (1914), 1151; *Neue Bearb.*, I. Suppl. (1930), 400. For the form of the name, see DESSAU, *l. c.*

American Academy in Rome, the privilege of executing an architectural survey of this remarkable monument. The restoration resulting from this is presented in the accompanying Plates 30-32, and is supplemented by the Frontispiece, reproducing an etching by MR. CECIL BRIGGS in the preparation of which a drawing by MR. G. P. STEVENS served as basis. Illustrative material is added on Plate 33. A detailed scientific monograph on this Bath by Dr. Bartoccini himself has just been published,¹ and its appearance is warmly welcomed by archaeologists and architects alike. It is an authoritative treatment of the monument to which so much of his time and care has been devoted. The essential information as to the Bath from an architectural point of view is to be found on pages 1-90; the following brief account, based chiefly on that work, will serve to explain the present restoration.

The area in question, exclusive of I, the *palaestra*, is slightly greater than 7,000 square meters: this is a large and grandiose structure.² The masonry consists in part of cut stone (limestone for outer walls and jambs, lintels and architraves; sandstone for interior walls), in part of a combination of cut stone and concrete; there is an occasional addition in the characteristic «block-and-brick» work of Septimius Severus. Almost everywhere, however, the walls received a veneering of marble, of which there is little now remaining in place. The vaults were of concrete, those over the great central hall being relieved of weight by the use of pumice-stone as filling. The orientation, with the hot bath rooms facing slightly to east of south, was practical in this climate, and in accordance with the precept of VITRUVIUS, V, x, 1; although in Rome itself the architects of the great baths, from the time of Trajan down, realised that in their climate, given the practice of afternoon bathing, a southwest exposure had its advantages, and hence they adopted it for their own structures.

The element at the north end marked I on the plan, Pl. 30, is the only important feature of the whole scheme which deviates from strict symmetry,³ doubtless owing to neighboring streets or buildings: an oblong area, open to the sky, is enclosed by a colonnade of *cipollino* columns; the colonnade is raised on two steps and varied in plan by two curving ends. Here was found in many fragments an inscription with the name of the proconsul Publius Valerius Priscus, governor of Africa under Hadrian. The presence in the pavement of holes for setting up gymnastic apparatus confirms the supposition that the function of this area was that of the *palaestrae* in the baths of the Capital, and in general it is obvious that the Roman edifices served as models for the African city. At the time the drawing was made, the *palaestra* had not been completely excavated. The plan should show a path of flagging stones running north and south in the middle of the *palaestra*.

¹ BARTOCCINI, *Le Terme di Lepcis*, («Africa Italiana», *Coll. di Monografie*, iv), Bergamo, 1929.

² In Rome, the central structure of the Baths of Trajan (*i. e.*, exclusive of the open space enclosed by the outer wall) is more than 24,000 square meters.

³ The rooms XIV and IV adjacent to it on the southwest were subjected to a similar treatment, but in their case the resulting lack of symmetry would hardly have been observed by the visitor.

From the south colonnade of this *palaestra*, doors lead into the series of bath rooms proper and their accessories ; in III, the great open-air swimming pool was bordered by three tall steps and its sides were completely sheathed with marble, while its bottom was a coarse mosaic ; the columns about three of its sides were of pink *breccia*. A series of massive buttresses to the south, not indicated on Pl. 30, are due to a subsequent reinforcing of the wall. The porticos carried a roof on wooden rafters. This portion of the Bath has the impressive dimensions of 41 × 25 meters.

The two symmetrically grouped rooms II, which are here called *vestibula*, but which may have been *apodyteria* or dressing-rooms, had pink *breccia* columns on three sides ; the smaller rooms marked V had each three columns of limestone, with Ionic capitals ; the ceilings were probably partially open for light and air ; the proximity of these apartments to VI and IX, which we call *sphaeristeria* and *gymnasia* respectively, suggests their having been *dstrictaria* or massage-rooms, although their lack of marble revetments has led Dr. Romaneli to propose the theory that they served for storage or service, and it is also possible that their purpose was that of *apodyteria* or dressing-rooms. The passage-ways in this as in some other parts of the bathing establishment were modified in successive periods ; the lateral corridors must have served an important function for communication, forming in fact part of a complete and organic system, the most characteristic feature of which, as originally constructed, was the four-sided corridor enclosing the central hall and its lateral *piscinae*. The *latrinae*, IV, were open to the sky.

The transition to the main part of the Bath is formed by the long transverse east and west corridor, beyond which is the great central hall, measuring 30 × 15 meters, the most imposing feature of the whole edifice (Frontispiece ; compare the three photographs on Pl. 33), with its ceiling in three quadripartite (groined) vaults supported by eight colossal columns of *cipollino*, m. 8.65 high and 1.20 in diameter at base, resting on pedestals m. 0.72 high and supporting effective white marble Corinthian capitals ; the rather coarsely executed architrave and cornice are also of white marble. This hall was furnished with low limestone benches, and marble bases for statues, the one in the center bearing an inscription in honor of Septimius Severus. The lateral *piscinae* lie four steps lower than the central hall, and the ten granite columns in each of them probably supported a coffered barrel vault with central aperture, which would have effectively lighted the niches with their statues. Beyond the central hall, on the main axis of the whole edifice, is the basin which formed the main *frigidarium*,¹ with its two pairs of *marmo grigio* columns supporting a white marble cornice and limestone architrave, and also the two smaller lateral pools, the space for which was obtained by blocking up a previously-existing long east and west corridor ;² light was

¹ The Italian archaeologists consider this the *tepidarium* ; but neither here nor in the larger hall to its north have arrangements for heating either the water or the rooms been found.

² This was one stretch of the great four-sided corridor which was mentioned above as a feature of the original plan.

admitted from above, and here too seats and statues either served the comfort or roused the interest of the visitor.

Next a small rectangular room effects the transition to the heated parts of the Bath. The large central hall in this group, 22×11 meters, is shown by the presence of a hypocaust and of tubes for hot air in the walls to be the *caldarium*; the two long basins are inserted in the massive side walls; the circulation of the hot air was assured by round apertures in the cornice. As to the three basins on the south of this hall, it is interesting to observe that the windowed apse lighting the central one seems to have been planned only during the progress of construction (it may also have been an alteration of a somewhat later period), as its walls do not bond with those adjacent. These basins, and also those at the ends of the large hall XI, received light from windows directly behind them. There was communication by the hypocaust and tubes with the furnaces, *praefurnia*, which were situated at a lower level, near the points marked XIII.

The four rooms X, which are here called *tepidaria* rather than *caldaria* or *laconica*, as lying somewhat more remote from the principal *praefurnia*, were also heated; each of the inner ones had a small basin, and each of the outer ones not only a window, but a glass mosaic treatment of its vaulted ceiling, with concentric bands of vegetable and geometric motives, for adornment.¹ The structure at XII is here considered the reservoir, *lacus*, for supplying water to the whole system.

The interpretation of the lateral pairs of rooms, VI, VIII, and IX, given in the legend to Pl. 30, — *sphaeristeria*, *apothecae*, *gymnasia*, — appears to conform to the practice of the ancients.² To the south and south-east of the whole Bath edifice was an open space, bounded beyond by a series of reservoirs.

The exact balance of secondary parts throughout practically the whole of this structure is in keeping with the tradition of the Capital, and may well have been adopted not merely in the striving for symmetry as such, but also with an eye to practical utility³; on occasion, one series of rooms could be withdrawn from general use, perhaps for purposes of cleaning, or of economy of personnel, or possibly a series could be assigned to the women while the men were still using the main part of the establishment; these large baths of the imperial age do not follow the Republican practice, which was advocated by VITRUVIUS, V, x, 1, and is represented by the two older public baths at Pompeii, of providing for the women a complete and independent series of bath rooms served by the common *praefurnia*; it may have been demonstrated more economical to construct one great series of rooms for the use of both sexes, at different hours or on different days; with some exceptions,

¹ Dr. Bartoccini considers these rooms the *laconica* or sweating-rooms.

² Somewhat different suggestions will be found in BARTOCCINI, *Terme*, 88.

³ These formal plans have however received suggestive adverse criticism from A. VON GERKAN, *Griechische Städteanlagen*, Berlin and Leipzig, 1924, 145 f.

promiscuous bathing was viewed with official disfavor even under the empire. It is however conceivable that the requirements of the women of Leptis Magna were met by a separate bath building, still to be discovered.

As to the period to which the sumptuous edifice which forms the subject of the present study is to be assigned, the stamps on some of the tiles ¹ and the monumental inscription that was found in the *palaestra* ² indicate the principate of Hadrian for the original construction, and are valuable testimony to one phase of the prosperity of the city; the most important of the successive restorations ³ is to be associated with the name of Septimius Severus.

The structure which we have been studying deserves a position of distinction in the repertory of Roman baths known to us: its admirable preservation renders it a valuable complement to the sadly damaged buildings of the Capital. It is slightly later in date than the famous baths of Trajan, which were the last great edifice of the sort in Rome to adhere to the custom of keeping the main bath rooms close to one side of the available area; the later builders, whose work is known through such masterpieces as the Antonine Baths and those bearing the name of Diocletian, isolated the baths proper in the midst of a broad open space. The Bath of Leptis Magna observes the older tradition. ⁴

¹ *C.I.L.*, xv, 124, 244, 847, 1029 c (BARTOCCINI, *Le Antichità della Tripolitania*, p. 67, fig. 100), 1066, 2000; lunate stamp, *Ascla....*; also the circular stamp, *C. A. Marsi, op. cit.*, p. 67, fig. 98. These tiles, with the possible exception of the last two, were made in Rome itself; but others in the Bath, showing Roman characters but the Punic language, are of local manufacture (*op. cit.*, p. 30, fig. 33; BARTOCCINI, *Terme*, 186 f.).

² Above, p. 130.

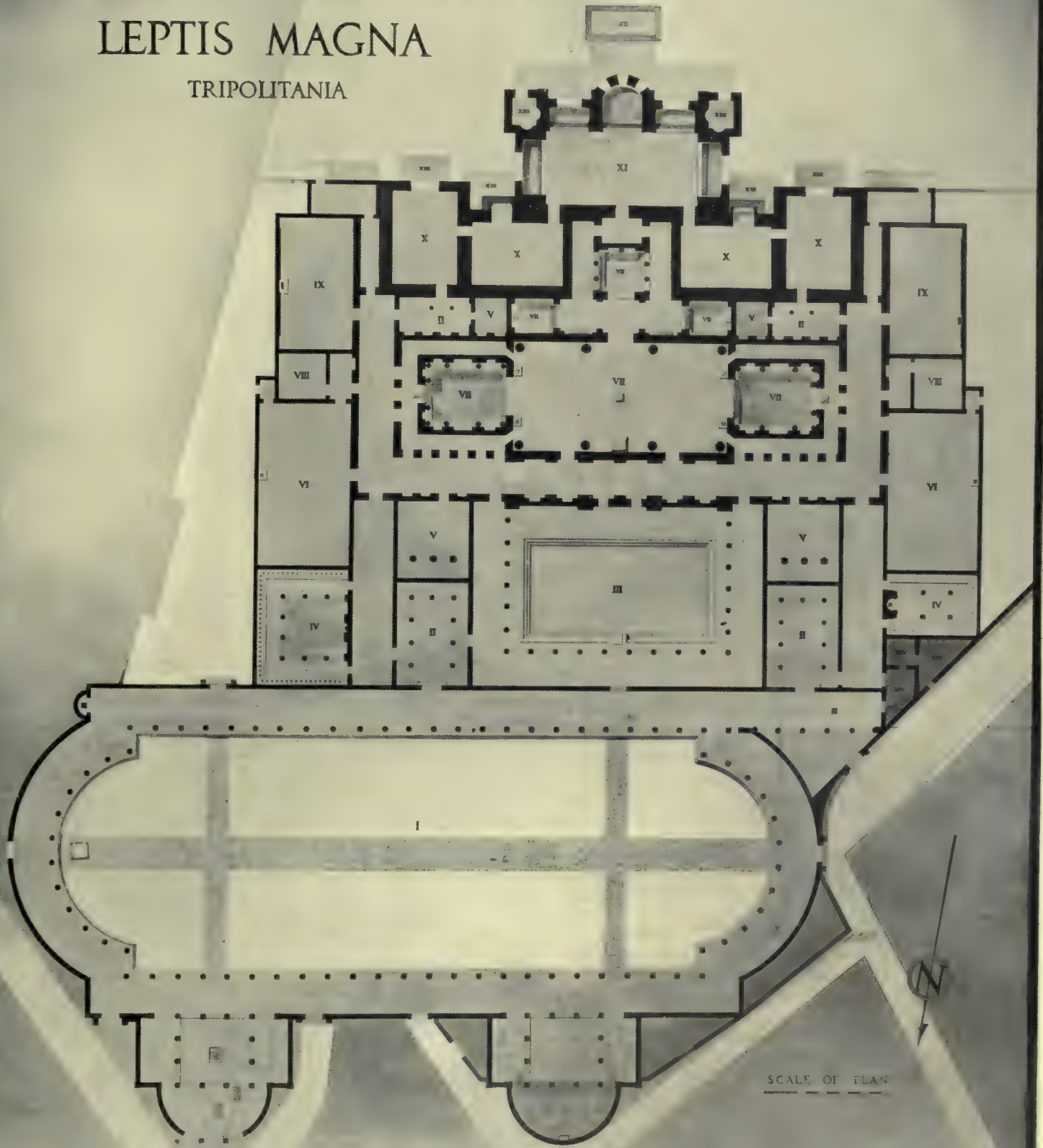
³ BARTOCCINI, *Terme*, pp. 79 and 80, thus interprets the inscription of Rusonianus, and that of Marcianus and Rufinianus, as evidence for dating this restoration.

⁴ Cf. JORDAN-HÜLSEN, *Topogr.*, I, iii, 313; and especially E. PFRETZSCHNER, *Die Grundrissentwicklung der Röm. Thermen*, Strassburg, 1909. The best general treatment of ancient baths and bathing customs is by A. MAU, s. v. *Bäder*, in PAULY-WISSOWA, *Real-Encyclopädie*, ii, 2743-2758.

ROMAN BATH

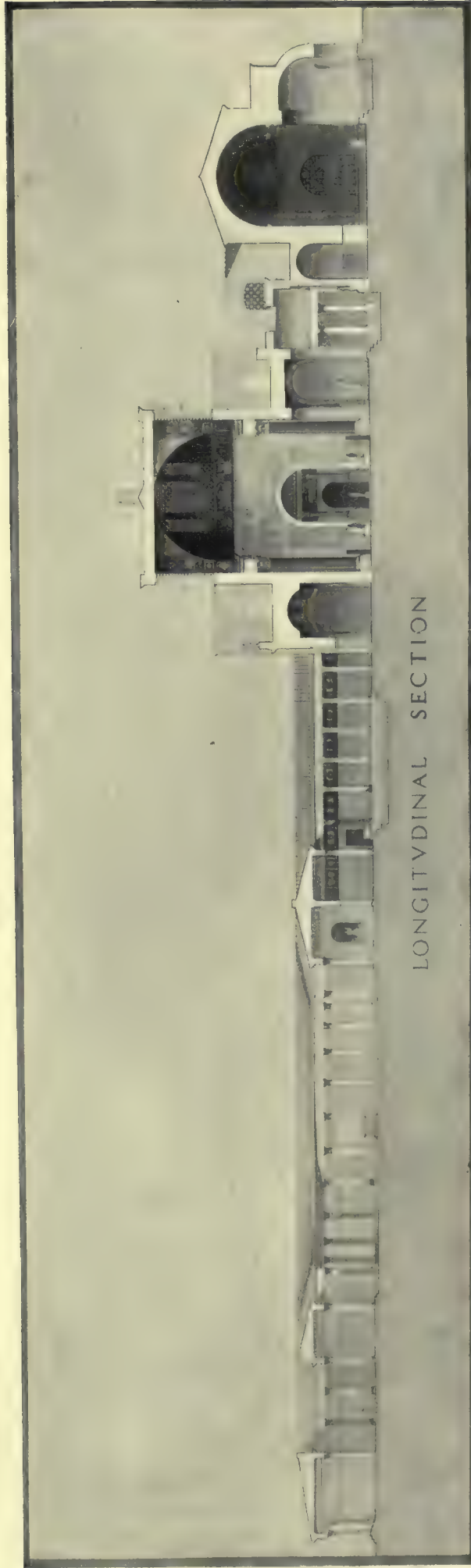
LEPTIS MAGNA

TRIPOLITANIA



I PALAESTRA, II VESTIBVLVM, III NATATORIVM, IV LATRINA, V DESTRICARIVM, VI SPHAERISTERIVM, VII FRIGIDARIVM,
 VIII APOTHECA, IX GYMNASIVM, X TEPIDARIVM, XI CALDARIVM, XII LACVS, XIII PRAEFVRNIVM, XIV OSTIARII CELLAE.

MEASVRED AND DRAWN BY GEORGE FRASER, FELLOW IN ARCHITECTVRE, AMERICAN ACADEMY IN ROME, MCMXXVIII



LONGITVDINAL SECTION

ROMAN BATH AT LEPTIS MAGNA.



LONGITUDINAL





1. Great Hall of *Frigidarium*.



2. Great Hall of *Frigidarium*.



3. General View of *Natatorium* and *Frigidarium*.



A RESTORATION OF « HORACE'S SABINE VILLA ».

THOMAS D. PRICE.

(PLATES 34-42).

OF the many examples on record of the smaller habitations of Roman antiquity, there is one known as « Horace's Sabine Villa », ¹ situated near the modern town of Licenza, about ten miles northeast from Tivoli. This abode is outstanding for its ideal situation, its completeness as an architectural unit, and the intimate relation which existed between house and garden. The assemblage of these factors, so successfully conceived and executed, into a harmonious whole marks this dwelling as of prime importance and consequently worthy of study and restoration. Knowledge of its remains dates from the year 1761, when DE CHAUPY and DE SANCTIS came upon them in their efforts to locate the site of the villa bestowed on Horace by Maecenas. ² But it was not until 1911, when the Italian Government commissioned ANGELO PASQUI to begin excavations on this site, that students became informed of the actual lay-out of the villa. These excavations extended over a period of three and a half years, until they were interrupted by the opening of the World War in 1914. The archaeological account of their results was published by DR. GIUSEPPE LUGLI, ³ who succeeded PASQUI after the latter's lamented death.

Topographically, the remains of this villa are situated in the seat of a distorted saddle-like geological formation, having as saddle-bows in the west Colle Rotondo and in the east a wooded hillock. To the north the land falls abruptly to the river Licenza (ancient *Digentia*), affording views across the valley to the hill towns of Licenza and Civitella, and to the south a more gentle slope leads to the ancient Roman road, with a view looking down the valley of the Licenza. The land is irrigated from a perennial spring known as *Fonte degli Oratini*, which is located on the slope of Colle Rotondo; and from this spring irrigating channels descend the slopes to the north and south. The fertility of the soil is enriched by the humus brought down from the wooded hillock.

¹ It is not the purpose of the present article to treat of the Horatian associations of the region or of the identification of the poet's own dwelling (A. W. VAN BUREN, *A Bibliographical Guide to Latium and Southern Etruria*,

2d. ed., Rome, 1925, p. 26).

² See G. LUGLI, in *Mon. Ant.*, xxxi, 1926, 466-468.

³ *Mon. Ant.*, xxxi, 1926, 457-600, 4 plates.

The structural remains of the villa consist mostly of low walls running in the general directions of north and south, and east and west. Their substructions together with a sewage disposal system remain almost intact, while the visible walls are in part restorations made during PASQUI's excavations. The walls of the original form of the edifice are distinguishable from those of later times by their reticulate type of stone construction. These walls vary in thickness from 10¹/₂ in. (0.266 m.) to 23 in. (0.586 m.) and are set on foundations of broken stone, lime and sand. The individual stones of the superstructure are of local origin. In plan (Plate 34) the villa is approximately rectangular. It measures 363 ft. (110.64 m.) in length by 142 ft. (43.28 m.) in width, and there are an upper and a lower level. On the upper level are the remains of the house proper, the plan of which is subdivided into twelve rooms. Six of these rooms are located on the east side of the house and the other six on the west. Connecting with each other are a peristyle to the north, an atrium to the south and a central corridor which extends almost through the entire length of the house. A system of hot, tepid and cold baths, representing an addition probably built during the lifetime of the original owner,¹ adjoins the house on the west. Good mosaic pavements² of an intricate pattern in black and white are still to be found in a fair state of preservation in rooms A and B (Pl. 42, Figs. 1, 2). Pavements of coarser workmanship are found at E and C, and fragmentary evidence of pavement at *q*. On the lower level are the remains of a garden with a central pool, enclosed by a porticus. From the house three flights of steps descend to this level, a central one which leads into the garden and two lateral ones which lead into the porticus on either side. The porticus is raised one step above the garden (see pp. 141 f.).

From the superstructures of the villa, there are, besides the lower walls on the site, pieces of painted plaster, carved stone and marble fragments, roof tiles, etc., all of which have been placed in the museum at Licenza.³

THE NEW EXCAVATION.

In October, 1930, a preliminary survey of the area was made by the writer. The plan was carefully measured and checked by triangulation, and the elevations were taken by means of a level. Upon the plotting of these notes, certain inconsistencies were detected in the plan. There was, also, a complete lack of information concerning the north and east walls of the central pool and the greater part of the eastern porticus. To secure these additional data, which were required for the completion of the survey, it was found necessary to excavate those tracts which concealed the desired information.

¹ *Mon. Ant.*, xxxi, 1926, 536.

³ G. LUGLI, in *Mon. Ant.*, xxxi, 1926, 568-576.

² M. E. BLAKE, in *Mem.*, viii, 1930, 89 f., 106.

At the initiative of the American Academy in Rome and DR. LUGLI, the Italian Government kindly allowed the excavation to be undertaken. The Bethlehem Society of the Archaeological Institute of America volunteered to finance the undertaking. For both these acts of generosity in the cause of science, grateful acknowledgement is hereby rendered.

On November 17th, 1930, the new excavation was started under the direction of DR. LUGLI and myself. There was a working force of eleven men under the immediate supervision of SIGNOR NICOLA DE ROSSI, a capable veteran of the former campaigns. Areas totalling 570 square yards (477.09 sq. m.) were staked out, and the force, divided into two squads, carried on the work until interrupted by the cold weather during the last week in December. In the following February the work was resumed for a period of three weeks ending about March 15th. During these two periods 730 cubic yards (558.45 c. m.) of earth were removed. The original level everywhere throughout the villa is now laid bare, except for portions of the garden; see the model, Pl. 35, and the various views and details given in Pls. 38 to 41.

This enterprise has amply repaid our efforts by its results, since it has not only revealed the hitherto unexcavated part of the east porticus, the angle at which this porticus joined the house and the massive concrete piers adjoining the outside of the north wall of the pool, but also unexpectedly furnished a clue to the treatment of the façades of the porticus that faced the garden. The uncovering of an opening, *n*, (Pl. 34), in the northeast corner of the porticus, another opening, *o*, and the beginning of a third opening, *p*, established the presumption that such openings were repeated around the porticus. The corresponding wall on the opposite side of the garden did not at first sight confirm this, since this wall as restored by the former excavator is continuous, without an opening for a distance of about 90 ft. (27.43 m.). But, since the size and position of the small pilasters which decorated the walls on either side of the garden are symmetrical, the architectural treatment of the two walls must, one would presume, have been identical: this is an alternating treatment of door and solid wall, both between pilasters. And in fact confirmation was forthcoming when we looked below the restored portion. At a level just above the substructure the corner stones of most of the openings were found *in situ* at *g*, *h* and *i*. This evidence, supported by that furnished by a portion of the wall at *f*, not only conclusively reveals the principal architectural elements of the façade of the porticus, but also demonstrates that the restored wall in the northwest corner of the garden is not in accordance with the original lay-out.

RESTORATION.

In presenting this set of drawings (Pls. 36, 37), I desire to state that I have endeavored, so far as possible, to supply an accurate pictorial representation of the villa in its original state. The drawings are based on authentic evidence secured at the site and where the

authentic evidence proved insufficient, imaginary elements derived from other contemporary sources have been employed.

Since the drawings are self-explanatory, only the factors controlling the restoration will be examined. The plan, restored section, roofs, and finally the garden will in turn be discussed.

The ground levels of the villa form two sloping planes: one is that of the house proper, which slopes generally downward at a 0.9% grade from east to west in the direction of the main sewer; the other is that of the porticus, which descends away from the house at a grade of 1.7%, following more or less the slope of the ground. These grades are indicated, in the first place, by the elevations of the upper treads of the steps at *a* and *b* (Pl. 34), and the approximate elevations of the northwest and northeast corners *c* and *d*; and, in the second place, by the elevations of the landing of the steps at *a* and *b* and the evidence of a floor level at *f*.

Since there is a tendency toward symmetry throughout the plan, the elements missing on one side could often be restored by the use of those present on the corresponding side. Upon this supposition was based the restoration of the rooms in the northwest corner of the house and the plan of the south side of the porticus (Pl. 36). Additional doorways were opened through restored walls where found necessary for circulation, and windows, of which there are no traces, were placed in locations suitable for the distribution of light and for ventilation.

The pavements in rooms A and B are the original ones;¹ elsewhere they are restorations in keeping with the period.

Having thus far given an account of the general lay-out of the villa, we are now confronted with the task of restoring those portions which at one time rose above ground. In doing so, it is necessary to determine the architectural style in which the house was built, whether or not it possessed a second story, and also the treatment of the peristyle and porticus. A careful study of the fragments of superstructure which were found on the site has led to the conclusion that most if not all of them were of a later period and probably belonged to the adjoining buildings. Of the few fragments found which may have belonged to the villa itself, none disclosed the slightest indication as to the architectural style of the edifice. The only way of approaching this subject at the present day is through the consideration of such evidence as is furnished by the walls themselves: if this evidence is not adequate, we must adopt a style which is fitting to the elements of the problem. The bases of pilasters found in the porticus at *g*, *h*, *i*, etc., and the peristyle at E indicate the probable use of an order. As further evidence is lacking, the Tuscan order, suggested by its simplicity and consistency in character with the plan, has been

¹ M. E. BLAKE, *loc. cit.*

adopted. Slight modifications, however, have been introduced. Having now decided upon a style, the question arises as to what extent of pretentiousness was displayed by the façades of the house. If the exterior walls were in any way designed for display, it is likely that an indication of this would be shown in the «*poché*» of these walls by either projecting or retreating masses; but, instead, we have only plain structural walls, with fragments of stucco here and there still in place along their bases. This, naturally, indicates that the walls were unpretentious, faced with stucco and free from any decoration save that of color. The height of the walls was indicated by their thickness and by the function they were intended to serve. The outside ones, which measure from 20 to 23 inches (0.507 to 0.588 m.), exclusive of the stucco, yielded little information because these were exposed and naturally were built thicker. The inner walls, on the other hand, which measure from 16 to 18 inches (0.408 to 0.457 m.), compare favorably in thickness with the walls of some of the two-story houses in Pompeii. In searching for further evidence of a second story, it was found, that, although the central corridor provided circulation from one end of the house to the other, none of the chief rooms opened into it, but instead it opened into either the porticus or the peristyle. Now, since the right portion of the house is separated from the left portion by the peristyle and atrium, it is conceivable that the walls of the central corridor continued upward in order to form a connecting corridor between the several units of the second floor. With this in mind, the peristyle was restored in the Pompeian fashion, its roof being accorded the characteristic pitch. Upon further study it was found, that, if a window were placed at a suitable distance above the line where this roof joins the wall, and if a person of average height were to look out through this window, his feet would be at a level which corresponded to a level that could be reached by steps, with treads and risers of ancient proportions, located in room F. This apparent agreement, confirmed as it is by the thickness of the interior walls, seems to supply sufficient evidence for a second floor. The porticus, on the other hand, serving as a sheltered passage between the principal entrance at *k* and the house proper, would naturally consist of only a single story. Further, whatever pretence to grandeur the porticus may have possessed would be found in the façades facing the garden.

Hipped roofs¹ were chosen for the covering over the major elements in preference to the other forms of roof by reason of the wide spans which they were to cover. For it seems unlikely that the alternative deck or shed roofs would have been used on spans of forty feet (12.19 m.): trusses are better adapted to such spans. In the case of the north porticus, the atrium, and the peristyle, shed roofs were used, because these belong to minor elements abutting against major ones. Deck roofs were used over areas *l* and *m*.

Summarising, then, these facts and suppositions, the villa had a second story, it had

¹ Cf. the copy of a painting, *Papers of the British School at Rome*, vii, 1914, pl. 21.

plain façades of colored stucco, with hipped roofs covering the large free-standing architectural elements, and shed roofs covering the abutting ones. The adjoining porticus was consistent in character with the house; its façade toward the garden was adorned with an order which in the restoration was arbitrarily chosen to be Tuscan.

Before entering upon the discussion of the garden, we will consider the construction of the pool G, at the center of the garden. This pool, built of concrete and with its borders flanked on the exterior by four massive concrete piers, two abutting against the north wall and two against the south wall, has formed the subject of much discussion. At first sight these massive piers seem altogether too large to serve as buttresses for the walls of the pool. Are they foundations for some heavy superstructure? To remove this uncertainty it was necessary to determine the forces acting upon the walls of the pool.¹

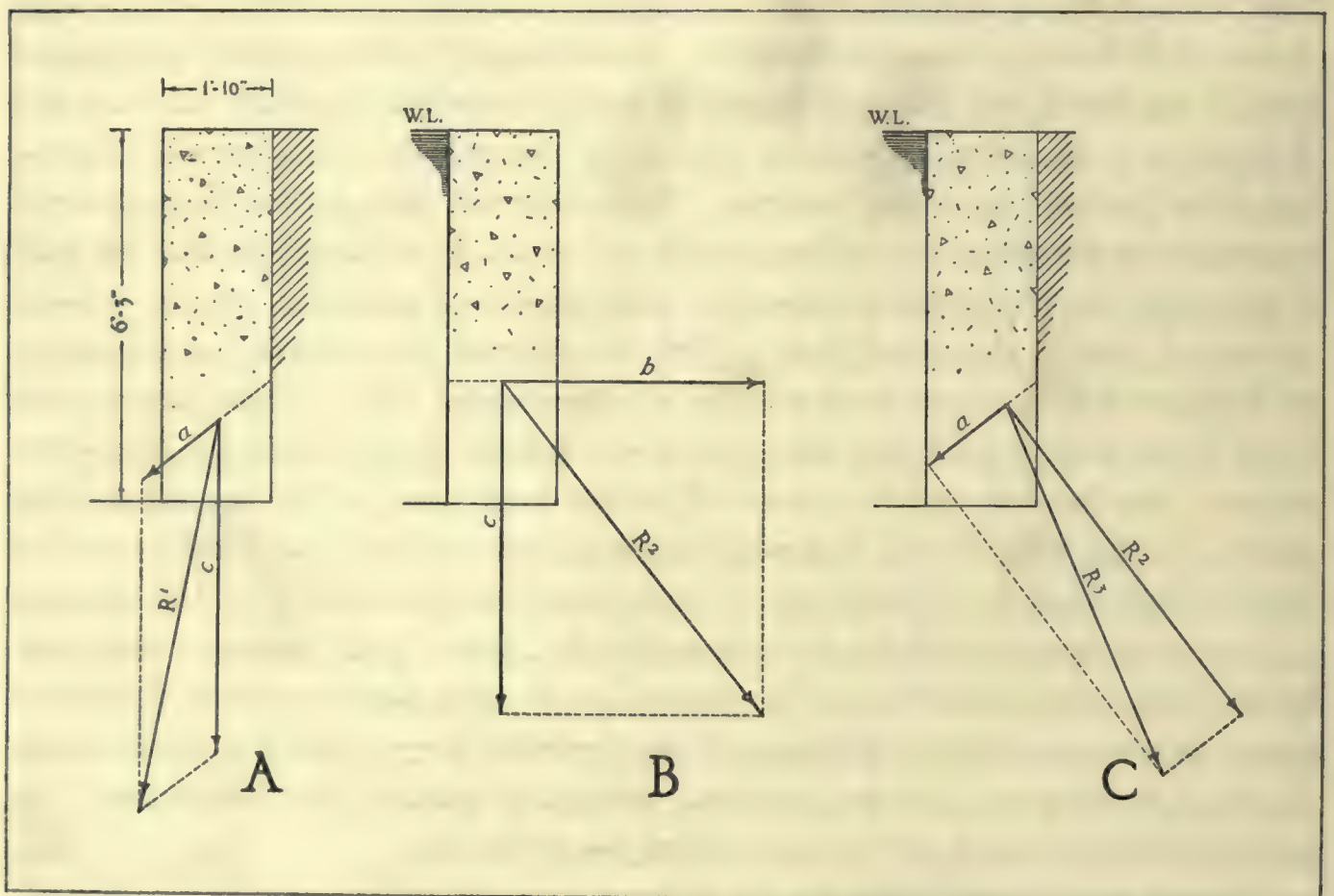


Fig. 1.

In the text cut (Fig. 1) the diagrams show the weight of the wall, with the inward and outward pressures and resultant forces exerted upon a one-foot (0.304 m.) section of the wall. On Figure A, R' represents the resultant of the pressure of the earth outside the tank and the weight of the wall, a condition which arises when the pool is empty.

¹ Calculations from KIDDER'S *Architect's and Builder's Pocket Book*, 16th. ed., N. Y. & London, 1916, 257.

In Figure B, the resultant R^2 represents the outward pressure of the water and the weight of the wall, without a counteracting earth pressure from outside. In Figure C, R^3 represents the resultant of the outward pressure of the water, when the pool is full, the pressure of earth outside and the weight of the wall. Since the resultant of all the three combined forces, R^3 , falls outside the base of the wall on the earth side, the wall required to be reinforced with buttresses on that side. The excessive massiveness of the piers may be explained by the possibility that the pool was built on filled ground, as in the case of the south and part of the west porticus, and that it was necessary to carry the piers down to virgin earth for a firm footing. If this was the case, the resultant of R^3 and of the resultant of the combined weights of these two piers as they affect a running foot of the wall will have to fall within the outer line of the bases, a condition which is obviously fulfilled in Fig. 2. The amount of fill may have been less along the north wall of the pool. If so, smaller piers on that side would be required; this may account for the fact that those piers project less than the ones on the south side of the wall. The demonstration, only briefly stated above, proves that the large piers are reinforcing buttresses and not foundations for a superstructure.

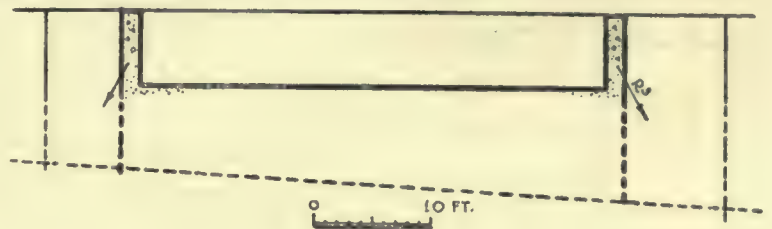


Fig. 2.

At no period has the private garden played a more important part in the lives of people than it did in the days of the ancient Romans. Evidence of this occurs in literature, mural paintings, and the actual remains of the ancient gardens in the cities and in the country. But research on this subject seems to have been limited to the very large garden villas of the empire, such as Hadrian's villa, and to the very small town gardens, such as are found at Pompeii: ¹ little attention has been given to the study of medium-sized villas, to which category belongs «Horace's Sabine Villa». Owing to the scarcity of contemporary information regarding the type of garden that would be found in this villa, its restoration has been based upon the conception that a garden when dominated by architectural elements should reflect the spirit of the design of those elements. This conception seems to be the most reasonable medium by which the subject can be approached.

The garden covered an area of 2900 square yards (2427.30 sq. m.). A pavement slab found on the garden side of the opening at *v* (P. 34) shows that the level of this garden was 8 inches (0.203 m.) below that of the porticus in that region. With all probability this difference of level was uniform on the three sides of the porticus away from the house,

¹ As is well known in archaeological circles, the latter have for years past formed the subject of special interest on the part of PROFESSOR G. SPANO, of the University

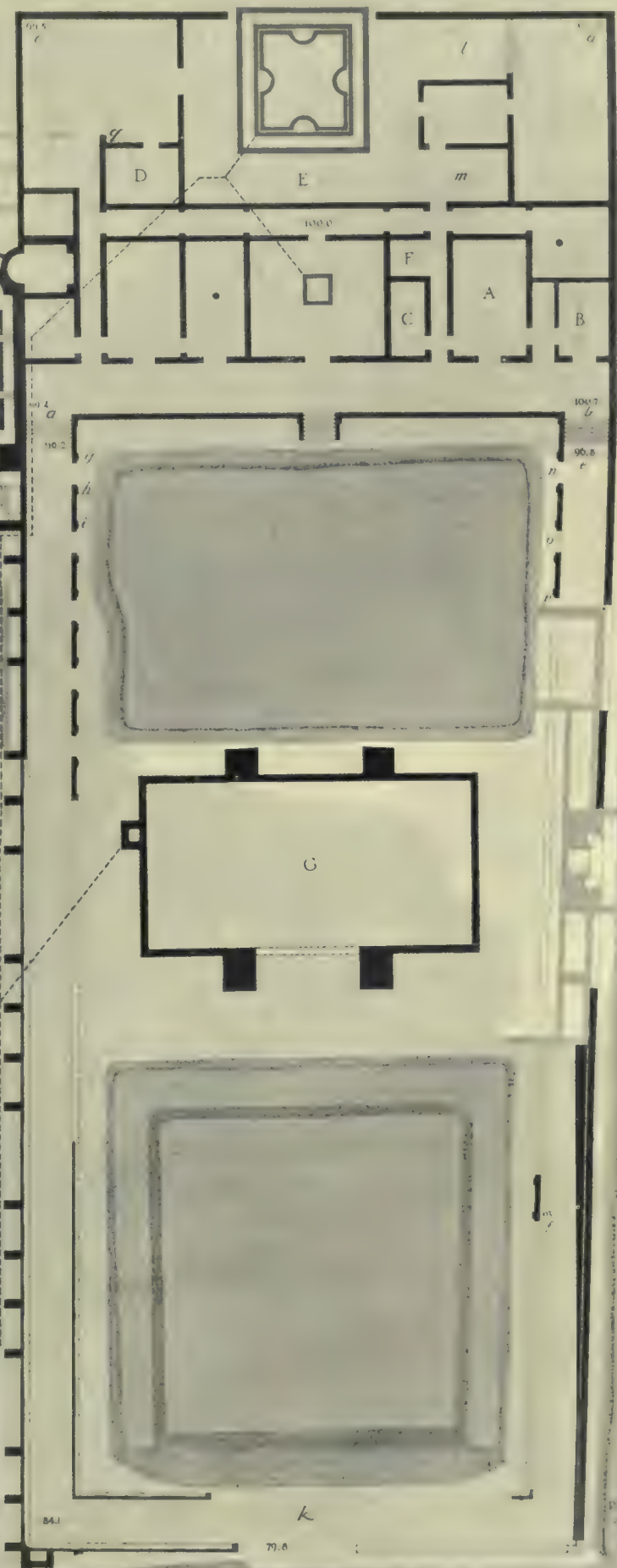
of Naples, from whom a treatise on the theme is awaited with the greatest eagerness.

and the general slope of the garden was the same as that of the porticus, namely 1.7%. The steepness of this slope is responsible for the pool G being placed crosswise in the garden. For, if it had been placed with its long axis coinciding with the long axis of the garden, the change of grade required to form a level area of such dimensions as the pool would have produced steep slopes, awkward and difficult of treatment.

In restoring the garden, the accessories have been kept as light and delicate as possible, so as to yield the maximum of contrast between the garden and the architecture of the porticus, a characteristic peculiar to Roman antiquity and evident in nearly every contemporary mural painting depicting gardens. The design of the wooden shelter south of the central pool was taken from a common motive in the mural paintings.¹ And the minor garden ornaments are derived mostly from Pompeii. Four large cypresses emphasise the central pool, and a smaller cypress tree is placed in each of the four corners of the porticus. The orchard, with trees in rows, is suggested by the garden of the House of Loreius Tiburtinus,² also in Pompeii.

¹ Cf. F. MAZOIS and M. GAU, *Les Ruines de Pompéii*, iii, Paris, 1829, pl. 46.

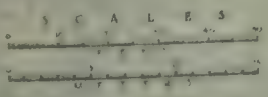
² The writer is now at work upon a restoration of this interesting house.



TOPOGRAPHICAL PLAN of
"HORACE'S VILLA"
IN THE SABINE HILLS *etc.*

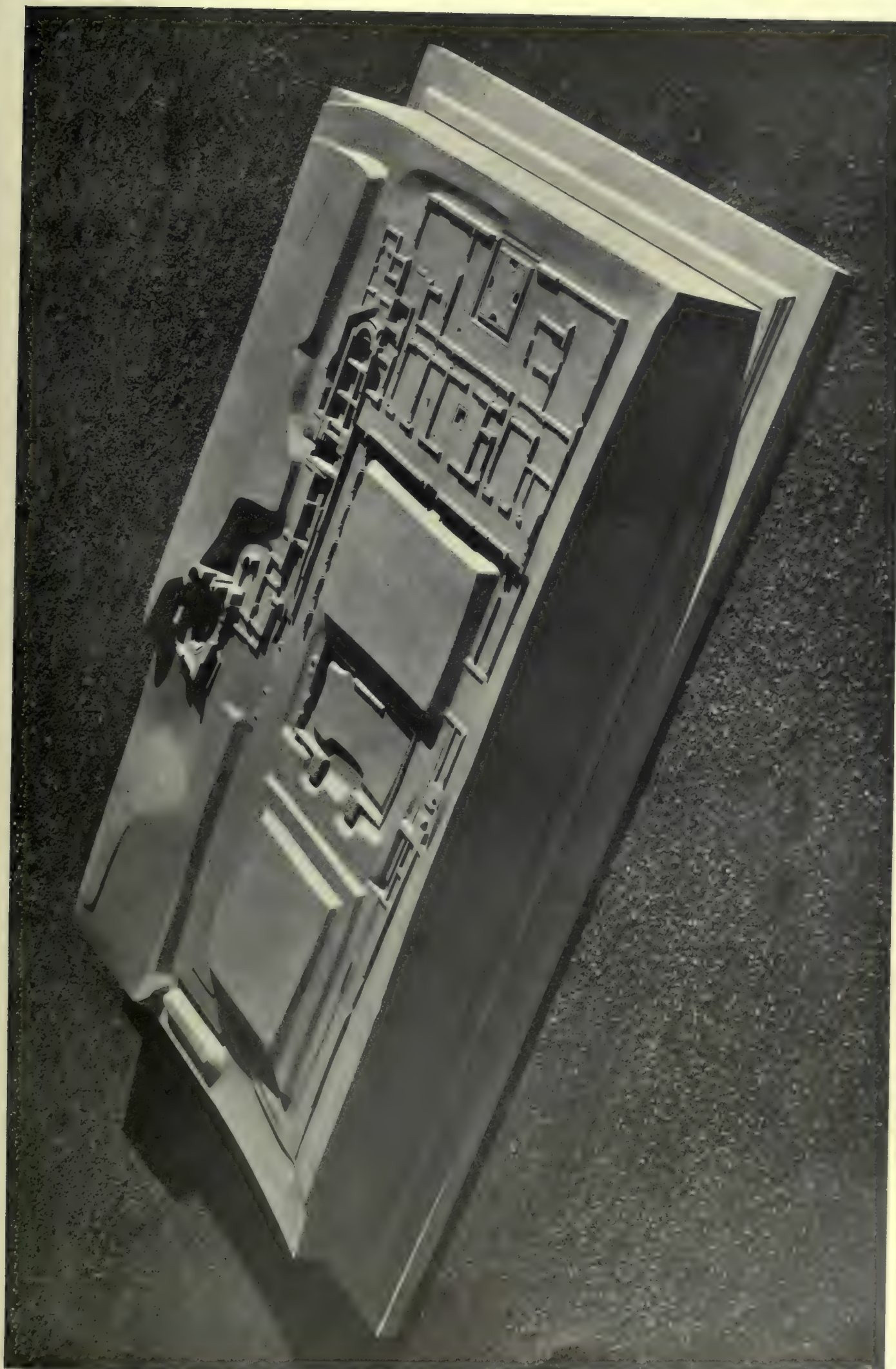
LEGEND
HORATIAN PERIOD
MEDIÆVAL PERIOD
MEDIEVAL PERIOD

AREAS CURRENTLY
UNEXCAVED
AREAS EXCAVATED BY THE
FLAVIAN GOVERNMENT
1911-14
AREAS EXCAVATED BY THE
AMERICAN ACADEMY
IN ROME
1950-51



PLAN REVISED
JAN. 10, 1951

Thomas Ashmole
1951



Topographical Model.

«HORACE'S SABINE VILLA».





RESTORED - LONGITVD





1. View looking North: Licenza in the Distance.



2. View of Living Quarters, from Southeast.





1. New Excavation of East Porticus, from Northwest.

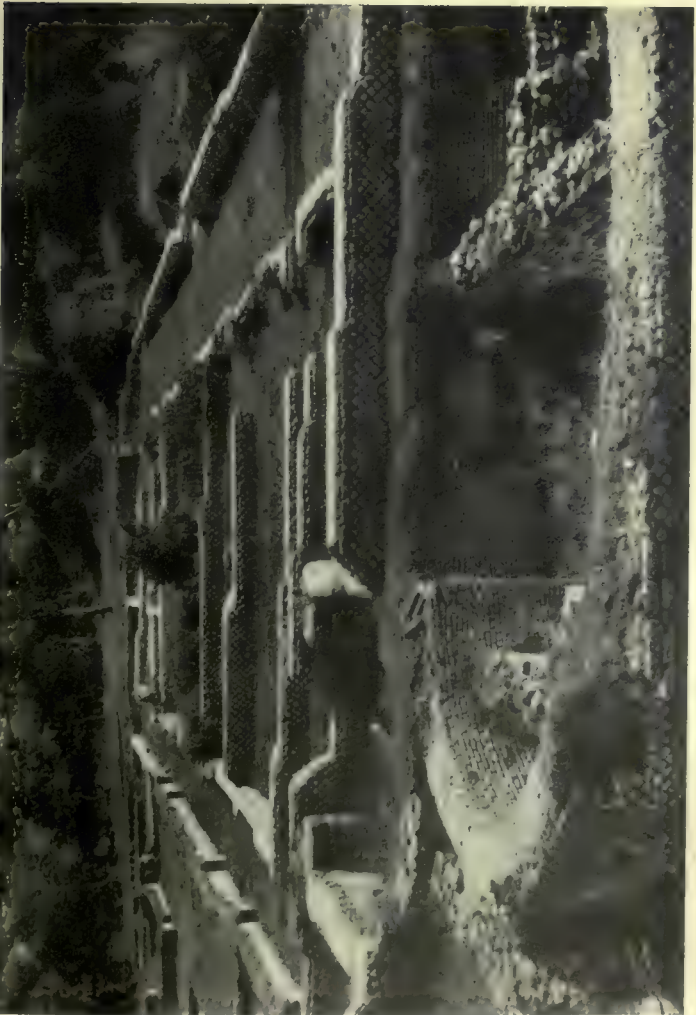


2. Living Quarters and Garden, from Northwest.





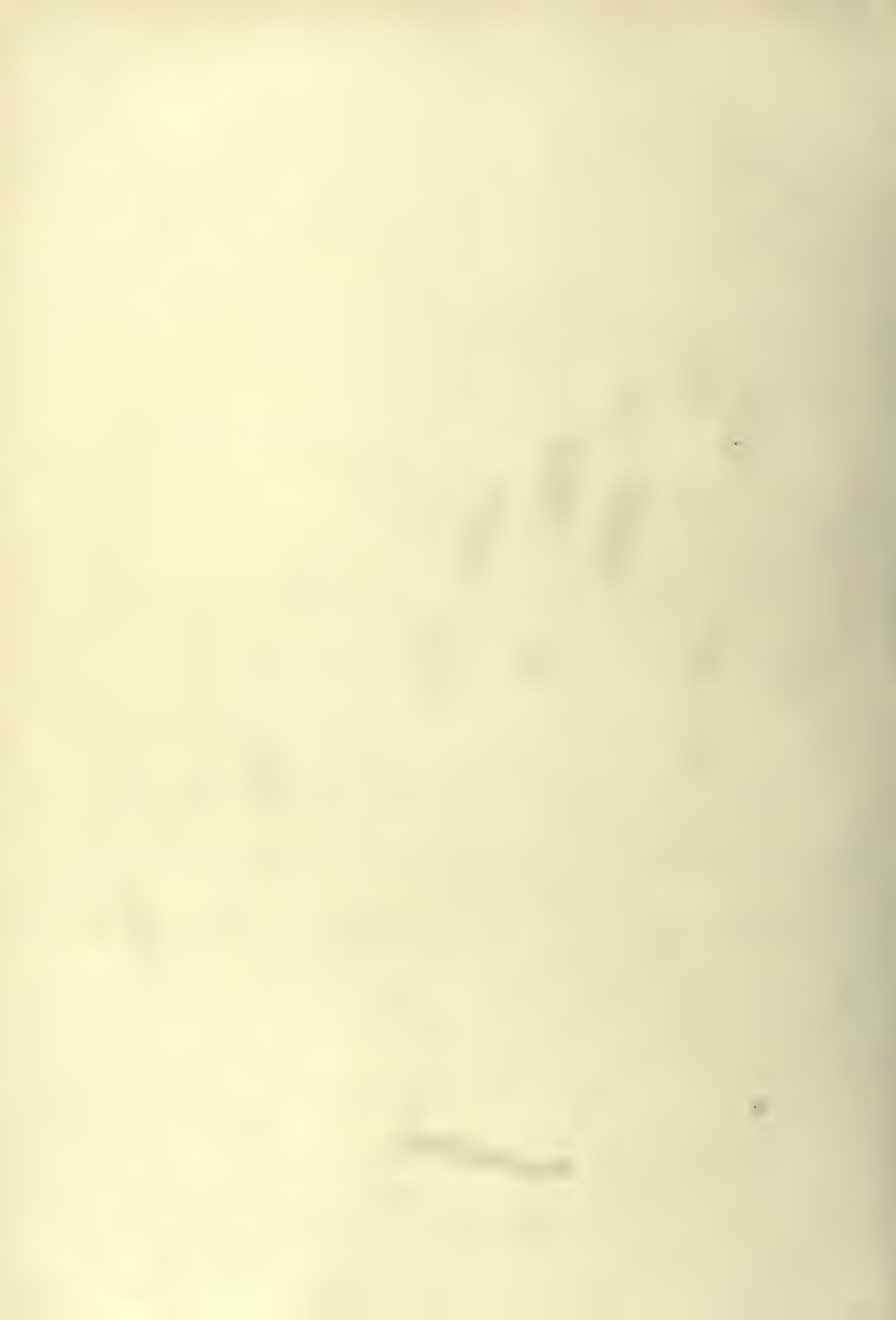
2. *Piscina*, from East.



1. Living Quarters, from West.

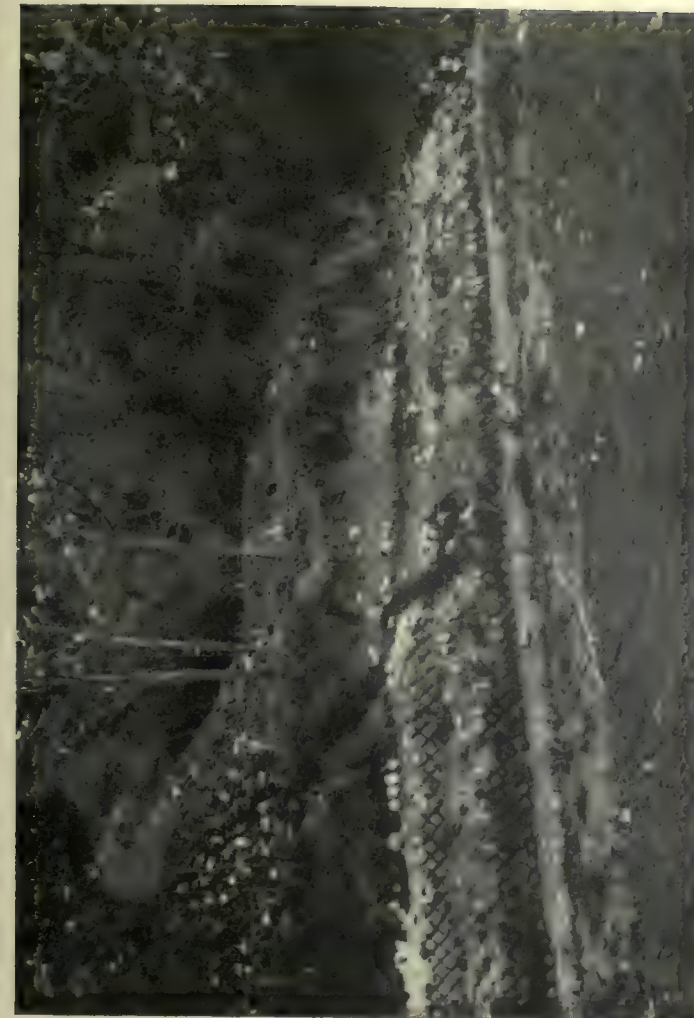


3. Central Steps from Garden to Living Quarters.
"HORACE'S SABINE VILLA".





1. New Excavation of West Porticus, from South.



2. South End of East Porticus, from Northwest.



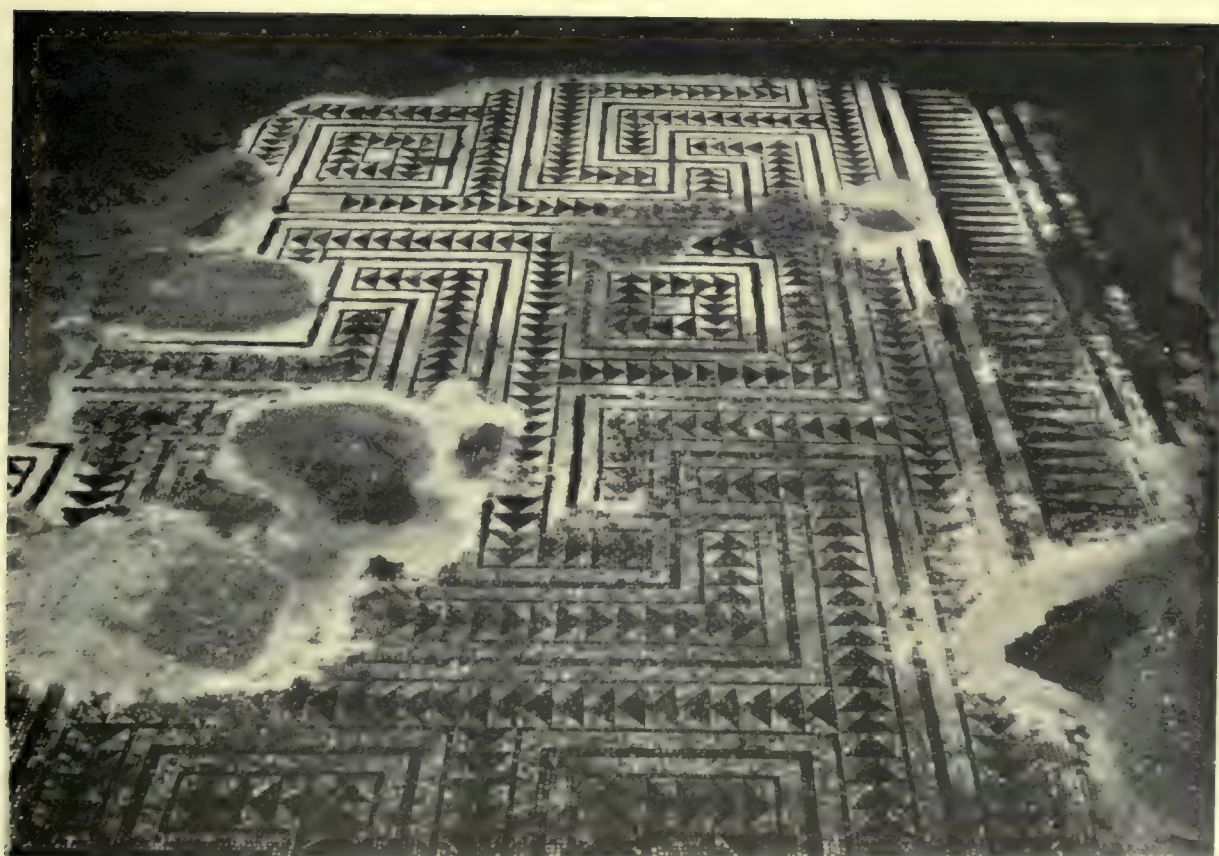
3. Excavation of North and East Walls of the Piscina.

« HORACE'S SABINE VILLA ».





1. Pavement in Room B.



2. Pavement in Room A.

« HORACE'S SABINE VILLA ».

Photographs by Courtesy of Dr. Giuseppe Lugli.



THE «*TERME NUOVE*» AT OSTIA.

B. KENNETH JOHNSON.

(PLATES 43-47).

RECENT excavations at Ostia, the port of ancient Rome, have revealed the remains of baths of the second century A. D. (repaired and enlarged at a later period). This structure, the so-called *Terme Nuove*, forms the subject of the accompanying drawings (Plates 43-45), in which the building is represented in a restored state. The present condition of the building is shown on Plates 46 and 47. Permission to execute this work and to publish the results was generously accorded by the Director of the Excavations, DR. GUIDO CALZA.

The site of the *Terme* lies to the east of the southern end of the Forum. It is approached and entered directly from the *Decumanus* and also from the Forum by way of the *Via dei Molini*. Of these two principal entrances, the latter seems to be the more important because of its dominance in plan as well as its more elaborate architectural treatment. As a whole, the remains of the structure are in an excellent state of preservation, although stripped of their marble wall-facings and the greater part of the original mosaic floors. The plan is complete, with at least a three-foot wall at every point, in most places existing as high as the sill level of the windows (about 6 ft. 6 in., or 1.98 m.). Furthermore one complete example of each of the two sizes of principal columns exists, and for the larger order of the *Frigidarium* the entablature is intact. At many points the walls show remains of arches and traces of the lines of vaults, which thus determine the basic and important elements of the structure and permit a restoration with a minimum of conjecture.

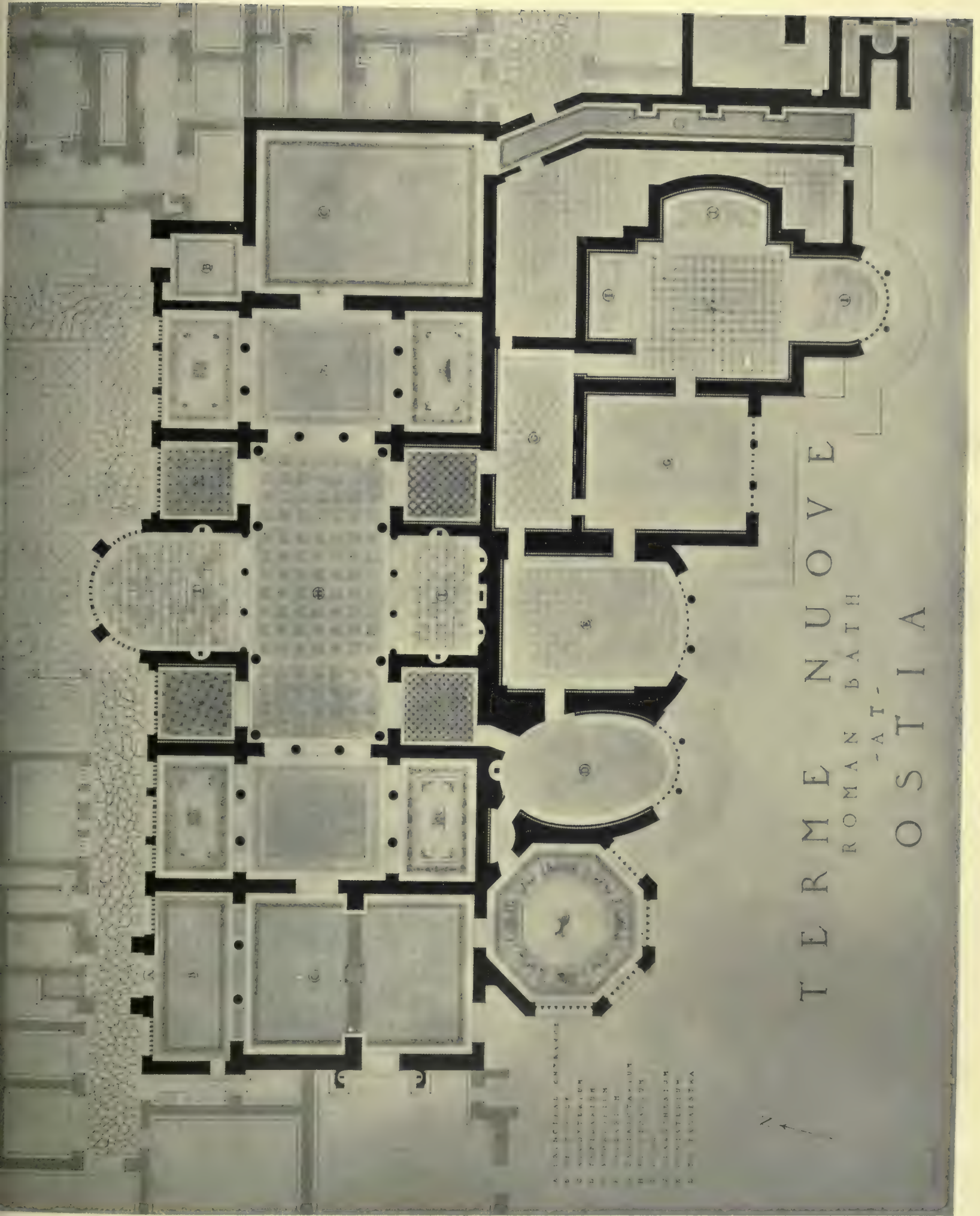
The plan of the baths is peculiar, in that the first section to be constructed was fairly symmetrical, and follows the usual formula; but, when additions to the original plan were made, symmetry was abandoned, with the result of a strange arrangement of peculiarly shaped rooms. It is quite evident that the south façade must have been a conglomerate design such as was not unusual in Roman bathing establishments. However, in spite of this unsymmetrical arrangement, the functional quality of the plan is good, with a definite and logical circulation. As the heating ducts are in place, the approximate desired tem-

perature of the rooms is evident, and, consequently, the order in which they were intended to be entered and their resulting uses are established. The *palaestra* is believed to be the area lying to the south of the plan as reproduced, but, as this area has not yet been excavated, the location of the *palaestra* must remain for the present an assumption.

In making the restoration drawings of the building, it was deemed advisable to omit drawings of the two façades, since neither was planned for much architectural effect. A drawing of the restored plan (Plate 43) and a longitudinal and a transverse section (Plates 44, 45) show almost every detail that merits consideration. Another restoration of the central elements of the bath may be proposed, namely, a series of vaults to cover both the central hall and the two adjacent portions indicated on Plate 44 as courts. The lighting to accompany this type of roofing could be effected by clear-story apertures on all sides of the central hall.

Plates 46, 47, supply photographic documentation.

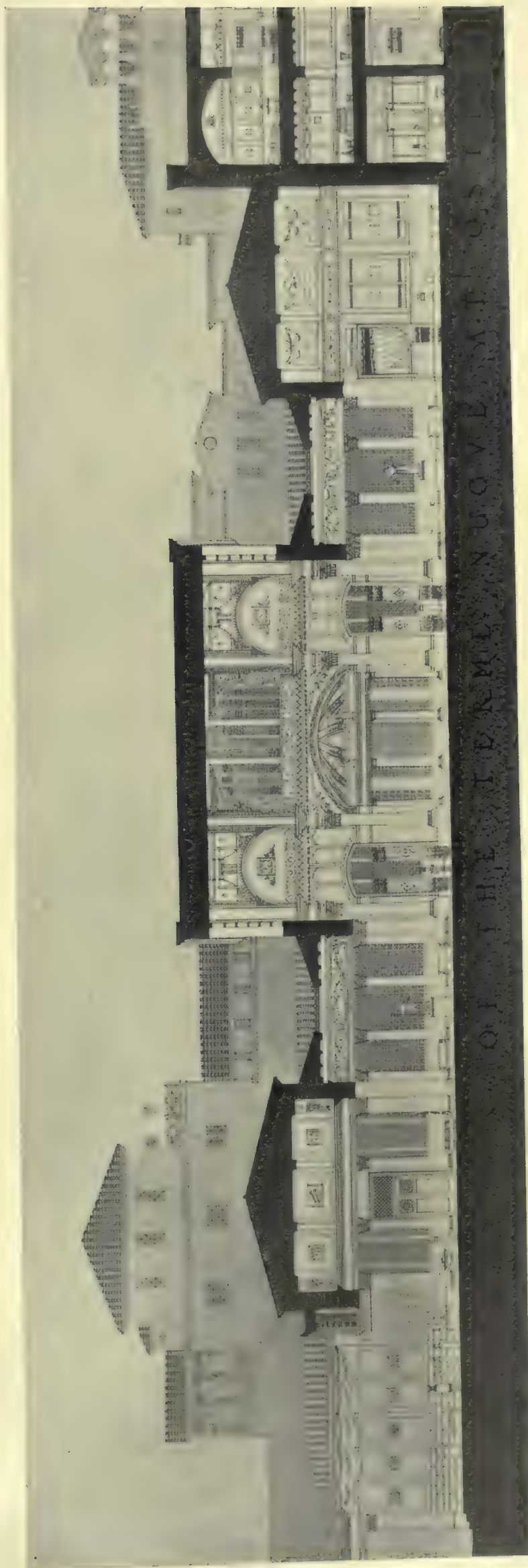
Little text is required in connection with the drawings, as no peculiar or difficult problems arose in the course of the study: it is believed that the plates are self-explanatory.



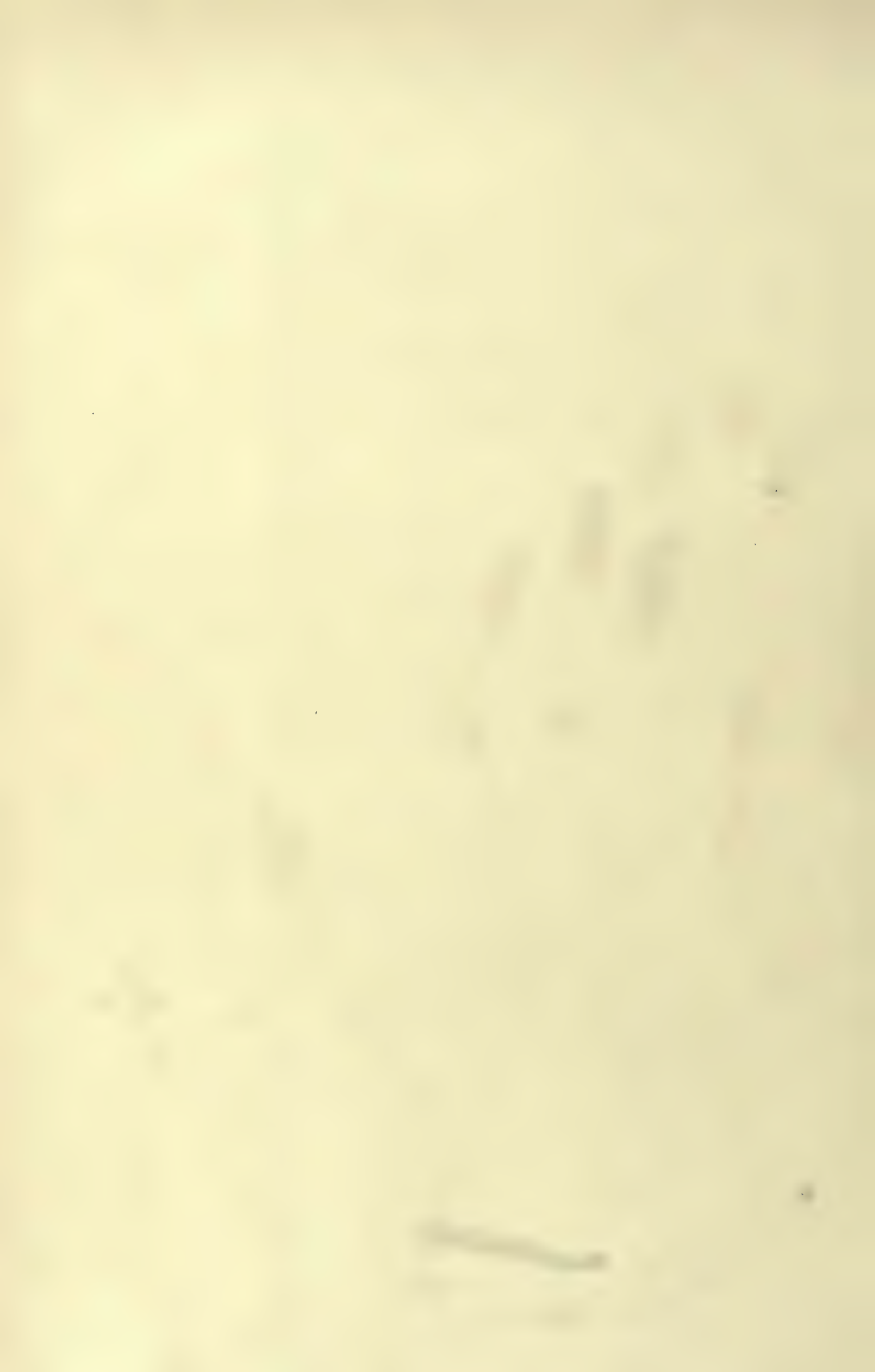
TERME NUOVE
 ROMAN BATH
 -AT-
 OSTIA

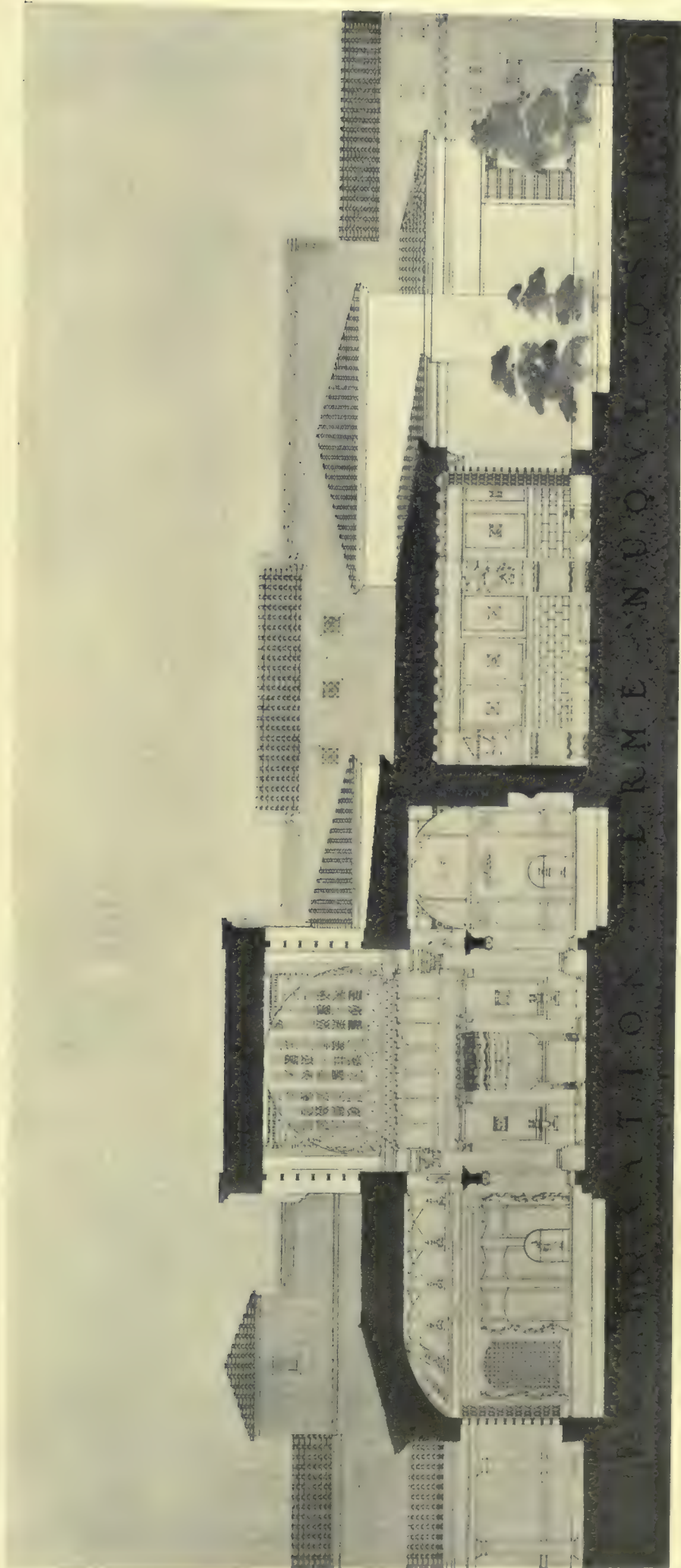
- A COLONNAD
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PLAN.



Longitudinal Section.





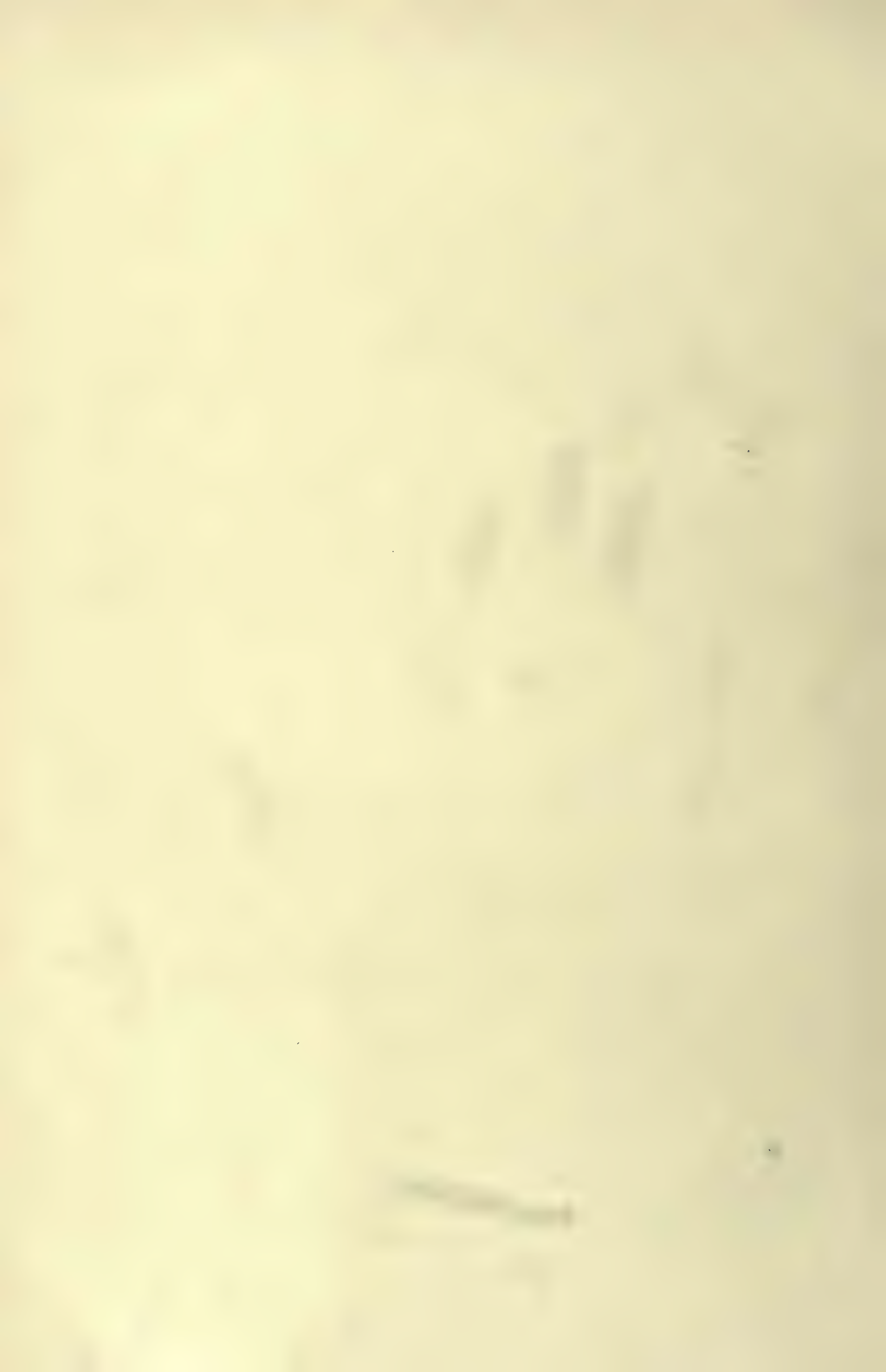
Transverse Section.



1. Room D from Southeast.



2. Central Hall from Northwest.





1. Room F, *Caldarium*, from Southwest.



2. Central Hall, from West.



3. Service Passages for Furnaces.



4. Room G, from Southeast.

THE AUGUSTAN POMERIUM.¹

JAMES H. OLIVER.

(PLATES 48-60).

THE origin of the practice of the establishment of a pomerium is obscure. Our sources state that it was an Etruscan institution, and if so, it must have come to Rome during the long period of Etruscan domination like so many other institutions of a religious nature familiar to us. The Etruscans may have found some such rite already existing among the Italic peoples, or may have brought it from Asia, which tradition, corroborated by archaeological evidence, points out as their original home. The latter is, perhaps, more probable. There is a great deal of evidence for the Oriental element in Etruscan religion, for example, the custom of divining by the livers of sheep and the flight of birds. In fact, a purifying ceremony of ploughing the land around the place designated for a temple existed back in ancient Sumer (*cf. Antiquaries Journal*, vi, 1926, 367 f.).

The ancient authors,² themselves, explained the origin of the word as *postmoerium* (« behind the wall »), but ancient etymologies are not always trustworthy. The fact that at some Etruscan cities the buildings run right up to the wall on the inside,³ suggests that the pomerium in such cases must have been on the outside only, especially where the wall was on a slope, *i. e.*, was a † *pro-moerium* rather than a † *post-moerium*.⁴ At Veii, for example, the city walls run along to the temple of Apollo, and then the wall of the temple serves as the defense also for the town. Likewise at Rome it would have been difficult to imagine a pomerium inside the wall on the Capitoline. However, where the nature of the land did not of itself form a protection, and an agger and a wall had to be built, it was necessary to keep the inside also free so that troops might be easily

¹ This discussion was originally presented as a dissertation for the degree of Doctor of Philosophy in Yale University in June 1931, and since then has been somewhat enlarged and partially rewritten.

² VALERIUS MESSALLA, *ap. GELL.*, xiii, 14, 1; AUCT. INC., *ap. FEST.*, 250 a 20 M.; VARRO, *L.L.*, v, 143; LIVY, i, 44, 4-5; PLUT., *Rom.*, 11.

³ *Cf.* the excavations at Marzabotto, near Bologna,

described by E. BRIZIO in *Monumenti antichi pubblicati per cura della Reale Accademia dei Lincei*, i, 1890, 250-426.

⁴ Hence PROFESSOR R. G. KENT argues for the derivation of *pomerium* from † *pro-moerium*, in *The Etymological Meaning of Pomerium*, in *T.A.P.A.*, xlv, 1913, 19-24; *cf.* also MOMMSEN, *Der Begriff des Pomerium*, in *Hermes*, x, 1876, 40-50.

moved from place to place just within the wall. This apparently was the situation described by LIVY, i, 44, 4 f.

Immensely valuable, as indicating the ceremony of establishment and the nature of the pomerium, are the legends about the foundation of Rome. The newly founded city seems to have been regarded as a temple and was laid out in quadrangular form. DIONYSIUS OF HALICARNASSUS (i, 88) describes the foundation of the *Roma Quadrata* thus :

Ἐπει δὲ πᾶν, ὅσον ἦν ἐκ λογισμοῦ θεοῖς φίλον, ὤφειτο πεπεῖσθαι, καλέσας ἅπαντας εἰς τὸν ἀποδειχθέντα τόπον περιγράφει τετράγωνον σχῆμα τῷ λόφῳ, βοὸς ἄρρενος ἅμα θηλεία ζευχθέντος ὑπ' ἄροτρον, ἔλκυσας αὐλακα διηνεκῆ τὴν μέλλουσαν ὑποδέξασθαι τὸ τεῖχος· ἐξ οὗ Ῥωμαῖοις τὸ ἔθος τοῦτο τῆς περιαρρόσεως τῶν χωρίων ἐν οἰκισμοῖς πόλεων παραμένει.

«And after he thought that all that one could expect to be pleasing to the gods had already been done, he called them all into the indicated space, and marked out on the hill a rectangular area, yoking a bull and a cow together to a plough, ploughing the continuous furrow that was to receive the wall. From that time this custom of ploughing around the places in the foundation of cities has remained among the Romans».

VARRO in the «*De Lingua Latina*» (v, 143) says :

Oppida condebant in Latio Etrusco ritu multi, id est iunctis bobus, tauro et vacca, interiore aratro circumagebant sulcum (hoc faciebant religionis causa die auspiciato), ut fossa et muro essent muniti. terram unde exculpserant, fossam vocabant et introrsum iactam murum. post ea qui fiebat orbis, urbis principium, qui quod erat post murum, postmoerium dictum, † eiusque [leg. eoque] auspicia urbana finiuntur.

«Many used to found cities in Latium according to the Etruscan rite, that is with yoked oxen, a bull and a cow, and between them a plough, they would trace a furrow around (this they did for religious reasons on the day set by the auspices), so that they might be furnished with a ditch and a wall. The place where they dug out the earth they called the ditch, and the earth that was thrown inside they called the wall. The circle which was made behind these was the beginning of the city, and because it was behind the wall it was called *postmoerium*; and here were the limits of the auspices of the city».

TACITUS, *Ann.*, xii, 24, after mentioning certain extensions of the pomerium, continues :

Regum in eo ambitio vel gloria varie vulgata. sed initium condendi, et quod pomerium Romulus posuerit, noscere haud absurdum reor. igitur a foro boario, ubi aereum tauri simulacrum aspiciamus, quia id genus animalium aratro subditur, sulcus designandi oppidi coeptus, ut magnam Herculis aram amplecteretur; inde certis spatiis interiecti lapides per ima montis Palatini ad aram Consi, mox curias veteres, tum ad sacellum Larum....

«Of the kings' rivalry in this matter, or if you choose their desire for personal fame, different accounts are given. But I think it is worth knowing how the founding commenced and what pomerium Romulus established. At the Forum Boarium, where we now see the bronze statue of a bull, because this sort of animal was hitched to the plough, began the furrow for marking out the city, so that it took in the great altar of Hercules. From there boundary stones were set up at regular intervals at the foot of the Palatine to the altar of Consus, then to the curiae veteres, then to the sacellum Larum».

VARRO'S description of the pomerium as an «*orbis*» seems to indicate a line. In that case the conception developed from that of a line to that of a space, for a space is indicated in the definition from the «*De Auspiciis*» of the Augur MESSALLA cited by GELLIUS, *Noct. Att.*, xiii, 14, 1 :

Pomerium est locus intra agrum effatum (within the inaugurated district) per totius urbis circuitum pone muros regionibus certis determinatus, qui facit finem urbani auspicii. (Ager effatus is a technical term used in speaking of oracles and auguries).

Similarly LIVY, i, 44, 4 f., defines the term as *locus*, and it is clear from his discussion that by the end of the Republic the term had come to mean the space left free on both sides of the wall :

Pomerium, verbi vim solam intuentes, postmoerium interpretantur esse; est autem magis circumoerium, locus quem in condendis urbibus quondam Etrusci, qua murum ducturi erant, certis circa terminis inaugurato consecrabant, ut neque interiore parte aedificia moenibus continuarentur, quae nunc volgo etiam coniungunt, et extrinsecus puri aliquid ab humano cultu pateret soli. Hoc spatium, quod neque habitari neque arari fas erat, non magis quod post murum esset quam quod murus post id, pomerium Romani appellarunt: et in urbis incremento semper, quantum moenia processura erant tantum termini hi consecrati proferebantur.

« They who look simply at the first meaning of the word, interpret pomerium as postmoerium. However it is rather circumoerium, the space which in the founding of cities the Etruscans formerly consecrated with augural ceremonies where they were going to run a wall. They established definite boundaries around it. And so buildings would not touch the wall on the inside, whereas now they are commonly even against it, and on the outside some ground would lie open free from human occupation. This territory, on which it was unlawful to dwell or plough, the Romans called the pomerium, not more because it lay behind the wall than because the wall lay behind it. And as the city increased, these consecrated boundaries were extended as far as the walls were going to move out ».

Livy introduces this discussion in connection with an extension of the pomerium which he ascribes to Servius Tullius. Of the more or less mythical period of the kings however, we know practically nothing except the tradition that the pomerium was extended from time to time. In historical times down to Claudius, extensions are ascribed by the ancient authors to three statesmen, Sulla, Julius Caesar, and Augustus.¹

The evidence for Sulla is the following :

GELLIUS (xiii, 14, 4), speaking of the exclusion of the Aventine, says that it is disputed why *neque id Servius Tullius rex neque Sulla, qui proferendi pomerii titulum quaesivit, neque postea divus Iulius, cum pomerium proferret, intra effatos urbi fines incluserint.*

SENECA (*De Brev. Vit.*, xiii, 8), describing how a scholar wastes time assembling useless or false information, speaks of one who had made a list of things that each Roman general had been the first to do, and proceeds: *idem narrabat.... Sullam ultimum Romanorum protulisse pomerium, quod numquam provinciali, sed Italico agro adquisito proferre moris apud antiquos fuit.*

TACITUS, *Ann.*, xii, 23: *Et pomerium urbis auxit Caesar (Claudius), more prisco, quo iis qui protulere imperium etiam terminos urbis propagare datur. nec tamen duces Romani, quamquam magnis nationibus subactis, usurpaverant nisi L. Sulla et divus Augustus.*

« And Caesar extended the pomerium according to an old custom, by which those who enlarged the imperium were permitted to advance the limits of the city as well. But although some great nations had been subjected, still no Roman generals had adopted this privilege except L. Sulla and the deified Augustus ».

CASSIUS DIO, xliii, 50, 1, speaking of Julius Caesar: *Ταῦτά τε ἐποίησε καὶ νόμους ἐπέφερε τό τε πωμήριον ἐπὶ πλείον ἐπεξήγαγε. καὶ ἐν μὲν τούτοις ἄλλοις τέ τισιν ὁμοία τῶ Σύλλα πράξει ἐδοξεν. (Ταῦτα refers to the moving of the rostra, and the laying the foundations of the Theatre of Marcellus, which involved the demolition of houses and temples and laid him open to the charge of the burning of old, mostly wooden, statues and the appropriation of hoards of money).*

« These things he did and introduced laws and extended the pomerium. And in both these matters and some others he seemed to act like Sulla ».

¹ The practical importance of the institution as late as this period appears from CASSIUS DIO, li, 19, 6.

For Julius Caesar we have the word of CASSIUS DIO, xliii, 50, just quoted, τό τε πωμήριον ἐπὶ πλείον ἐπεξήγαγε, and in the lament over his death (xliv, 49, 1, 2): τέθνηκεν... ἐν τῇ πόλει ἐνεδρευθεὶς ὁ καὶ τὸ πωμήριον αὐτῆς ἐπαυξήσας, and then also the passage in GELLIUS (xiii, 14, 4) quoted above: «... *neque postea divus Iulius, cum pomerium proferret,...*». On the other hand, against the extension of Julius Caesar there is not only the silence of others, but the evidence of SENECA, *De Brev. Vit.*, xiii, 8, that Sulla was the last to extend it, and the statement of TACITUS, *Ann.*, xii, 23, that up to the time of Claudius only Sulla and Augustus had done so.

For Augustus we have the passage in TACITUS, *Ann.*, xii, 23, quoted above, where the author mentions the extension of Claudius, and, after a word about the right of extension, continues: *nec tamen duces Romani, quamquam magnis nationibus subactis, usurpaverant nisi L. Sulla et divus Augustus*. And then we have two other passages:

CASSIUS DIO, lv, 6, 6, in enumeration of events of the year 8 B. C. after Augustus had again accepted the supreme power,

τά τε τοῦ πωμηρίου ὄρια ἐπηύξησε, καὶ τὸν μῆνα τὸν Σεξτίλιον ἐπικαλούμενον Αὔγουστον ἀντωνόμασε.

«He enlarged the pomerial boundary, and changed the name of the month Sextilis to Augustus».

The *Vita Aureliani*, 21, 10-12, in the *Historia Augusta*, after saying that Aurelian built the wall,

Nec tamen pomerio addidit eo tempore, sed postea. pomerio autem neminem principum licet addere nisi eum, qui agri barbarici aliqua parte Romanam rem p. locupletaverit. addidit autem Augustus, addidit Traianus, addidit Nero, sub quo Pontus Polemoniachus et Alpes Cottiae Romano nomini sunt tributae.

«But he nevertheless did not add to the pomerium at that time, but later. Moreover, no princeps may add to the pomerium except one who has enriched the Roman empire with some share of barbarian soil. Augustus did, so did Trajan, and so did Nero, under whom the Pontus Polemoniachus and the Alpes Cottiae were subjected to the empire».

On the other hand, there is testimony against an extension by Augustus. In the *Lex de Imperio Vespasiani*, C.I.L., vi, 930 (14-16), the right of extending the pomerium is given Vespasian, and the precedent of Claudius is cited without any reference to Augustus: *utique ei fines pomerii proferre, promovere, cum ex re publica censebit esse, liceat, ita uti licuit Ti. Claudio Caesari Aug. Germanico*. Nor does AUGUSTUS speak of an extension in the *Monumentum Ancyranum*. Nor does Suetonius say anything about it. Again, GELLIUS, xiii, 14, omits Augustus in speaking of extensions by Sulla, Caesar and Claudius. Furthermore SENECA, *De Brev. Vit.*, xiii, 8, as we mentioned on page 147, writes,

... Sullam ultimum Romanorum protulisse pomerium, quod numquam provinciali, sed Italico agro adquisito proferre moris apud antiquos fuit. hoc scire magis prodest quam Aventinum montem extra pomerium esse, ut ille adfirmabat, propter alteram ex duabus causis, aut quod plebs eo secessisset, aut quod Remo auspicante illo loco aves non adixissent.

«... that Sulla was the last of the Romans to extend the pomerium. Among the ancients it was never the custom to extend it for the addition of provincial, but for that of Italian territory. It is more useful to know this than to know that the Mons Aventinus lies outside the pomerium, as that man used to assert, for one of two reasons, either because the plebs seceded there, or because when Remus was taking the auspices on that spot, the birds were not favorable».

On the other hand, one can reply to those who urge the silence of the *Lex de Imperio* as a proof against an extension by Augustus, that this law of Vespasian mentions only his immediate predecessor in this connection, namely the emperor Claudius, and that it also says nothing of Sulla, whose extension is well testified and not denied. Moreover, the silence of AUGUSTUS himself in the *Monumentum Ancyratum* may be explained by the nature of this document. In it AUGUSTUS was presenting himself to posterity in the most favorable light possible by selecting matters to illustrate his generosity and patriotism. Accordingly, he took pains to tell of the largesses he had distributed, of the temples and public buildings he had restored, of the new lands he had subjected to the Roman imperium, how he had freed the sea of pirates, and so forth. Those were the deeds that would make an impression all over the empire. The extension of the pomerium, however, was rather a local matter, connected with the city of Rome. In the same way no mention was made of the important and useful act of dividing the city into fourteen regions. The effect at which the Emperor aimed was more directly attained through words such as *Ter munus gladiatorium dedi meo nomine et quinquens filiorum meorum aut nepotum nomine*. If he had written *pomerium protuli*, the statement would hardly have called forth from Asia to the Pillars of Hercules a single breath of admiration.

There is another passage which is frequently interpreted as indicating that the pomerium was not extended to the east beyond the agger by Augustus or by anyone up to the time of Vespasian. PLINY, *N.H.*, iii, 66-67, describes the size of the city in the Flavian period :

Moenia eius collegere ambitu imperatoribus censoribusque Vespasianis anno urbis conditae DCCCXXVI m. p. XIII. CC, complexa montes septem. ipsa dividitur in regiones XIV, compita Larum CCLXV. eiusdem spatium mensura corrente a miliario in capite Romani fori statuto ad singulas portas, quae sunt hodie numero XXXVII, ita ut XII portae semel numerentur praetereanturque ex veteribus VII, quae esse desierunt, efficit passuum per directum XX·M·D·CCLXV. ad extrema vero tectorum cum castris praetoriis ab eodem miliario per vicos omnium viarum mensura colligit paulo amplius LXX p. quod si quis altitudinem tectorum addat, dignam profecto aestimationem concipiat fateaturque nullius urbis magnitudinem in toto orbe potuisse ei comparari. clauditur ab oriente aggere Tarquini Superbi, inter prima opere mirabili: namque eum muris aequavit qua maxime patebat aditu plano. cetero munita erat praecelsis muris aut abruptis montibus, nisi quod exspatiantia tecta multas addidere urbes.

PLINY considers the city from the geographical standpoint, not the legal. He speaks of the city first in the old sense of the city within the walls, and he relates how large it was, measured from the golden mile-stone in the Forum to the gates of the "Servian" Wall. But then, he says, one can include all the part outside the walls as far as the Praetorian Camp, and he emphasizes the height of the buildings, as much as to say, "Imagine the effect!" Although for him the city as a true unit is that of the "Servian" Wall, it is in his description of it bounded by the Agger on the east while high walls and nature fortified it on the other sides, — except that buildings went so far out beyond the city as to include within it really many other towns. After all, the pomerium furnished

a legal and religious line, quite different from a visible geographical boundary. This passage cannot be adduced as proof that the legal boundary in the east still remained at the Agger in the time of Vespasian. It is obvious that the city in the time of Vespasian extended beyond its natural boundaries, so to say, because we have the cippi of Claudius outside these boundaries.¹

That Suetonius, however, should not mention an extension by Augustus, and that Seneca should recall a statement that no one since Sulla had made an extension, are serious difficulties. Of course when one is purposely bringing together a number of examples of useless information, as Seneca was doing, one does not consult archives to confirm each particular; undoubtedly Seneca was writing from memory and might have been mistaken; or more probably he himself knew that Sulla was not the last, for he concludes the list with the words, «*alia deinceps innumerabilia, quae aut facta sunt mendaciis aut similia.*» The evidence of the *Vita Aureliani* is not so important, but, in any case, in the face of direct statements of Tacitus and Cassius Dio (see p. 148) one cannot well affirm that the pomerium was not extended under Augustus. In short the question is not solved by the literary evidence.

L. Laffranchi, (in *Boll. Com.*, xlvi, 1919, 27-29), has attempted to prove that there is numismatic evidence for the Augustan extension. He cites a denarius (Coh., 2d. ed., Aug. no. 117 and Bab., Julia no. 156; *B. M. Coins Rom. Rep.*, ii, p. 17, nos. 4363-4367; *Rom. Emp.*, i, p. 104, nos. 638-642) of the years 29-27 B. C., where a priestly personage is represented ploughing with a team of oxen. The date, even though we choose to remember the census of 28, hardly fits into the chronology. Dio, as we have shown, attributes the extension to the year 8. There is no similar numismatic evidence for either Claudius or Vespasian, but on the other hand Trajan, who is not reported as having extended the pomerium except in the *Vita Aureliani*, struck analogous coins.² These however, represent the establishment of certain colonies, as Strack³ has maintained. Hence it is likely that the similar coin of 29-27 B. C. also represents the establishment of colonies, a conclusion which corresponds very well with known events.⁴ This coin, therefore, may not be accepted as proof of an extension by Augustus.

There still remains to be discussed the archaeological evidence for such an extension. This up till now has not been collected, and yet, if this evidence shows that during the period of Augustus buildings were erected upon the earlier line of the pomerium, this fact affords proof that for Augustus this line had lost its religious significance and that, therefore, Augustus extended the pomerium. Assuming the «Servian» Wall, so-called,

¹ Pl. - A., 393-395.

² Cf. MATTINGLY-SYDENHAM, *Roman Imperial Coinage*, ii, plate 10, no. 184.

³ PAUL STRACK, *Untersuchungen zur römischen Reichsprägung des zweiten Jahrhunderts*, Stuttgart, 1931, Teil i,

129-130.

⁴ So MATTINGLY, in *B. M. Coins Rom. Emp.*, i, p. cxxiv; on p. cvii he suggests, as possible, «a reference to a projected extension, perhaps not carried out».

as a line to which the pomerium adhered at one stage in its development, we follow it around and examine every piece of ancient building that intrudes upon it, recording all that was once discovered and then later destroyed as well as that which still remains. Each building must be studied in regard to its construction and type in order to determine its date. We examine the concrete, both faced and unfaced, according to the criteria established by DR. VAN DEMAN in the article «Methods of Determining the Date of Roman Concrete Buildings», in *Amer. Journ. of Arch.*, xvi, 1912. This will enable us to determine at what period the pomerium ceased to be sacred and was thrown open for building, or rather at which period the various parts were thus invaded.

Still not all the territory included within the «Servian» Wall came within the pomerium. The Aventine, as we have indicated, certainly did not until the time of Claudius form a part of the legal city. AULUS GELLIUS, xiii, 14, 4 :

Propterea quaesitum est ac nunc etiam in quaestione est, quam ob causam ex septem urbis montibus, cum ceteri sex intra pomerium sint, Aventinus solum, quae pars non longinqua nec infrequens est, extra pomerium sit, neque id Servius Tullius rex neque Sulla, qui proferendi pomerii titulum quaesivit, neque postea divus Iulius, cum pomerium proferret, intra effatos urbi fines incluserint.

«Therefore the question has been raised and it is still now in dispute, why of the seven hills of the city only the Aventine, which is not a far and a sparsely populated section of town, is outside the pomerium, while all the other six are inside; and why neither King Servius Tullius nor Sulla, who sought the honor of extending the pomerium, nor afterwards the deified Julius, when he was extending the pomerium, included it within the consecrated limits for the city.»

And SENECA in the same passage from *De Brev. Vit.* (xiii, 8) already mentioned on pages 147 f. and 150 asks whether *hoc* (that Sulla was the last to extend the pomerium) — *hoc scire magis prodest quam Aventinum montem extra pomerium esse, ut ille adfirmabat, propter alteram ex duabus causis, etc.*

The topographers generally exclude the Capitoline also. GILBERT (i, 317-327) maintained that it was excluded from the pomerium because it was not included in the four regions of the Republican city, and because the expression *urbs et Capitolium* seems to have been common. He cited as examples :

CAESAR, *B.C.*, i, 6, 7 : *consules.... ex urbe proficiscuntur, lictoresque habent in urbe et Capitolio privati contra omnia vetustatis exempla.*

LIVY, iii, 68, 7 : *ante portas est bellum; si inde non pellitur, iam intra moenia erit et arcem et Capitolium scandet....*

LIVY, v, 39, 9 : (after the battle of the Allia) *nam cum defendi urbem posse, tam parva relicta manu, spes nulla esset, placuit cum coniugibus ac liberis iuventutem militarem senatusque robur in arcem Capitoliumque concedere....*

LIVY, xxxii, 29, 2 : *Romae non in urbem solum sed in Capitolium penetraverat lupus.*

But these passages distinguish simply between the well-fortified citadel within the city and the rest of the town. Caesar adds the expression *in Capitolio* as much as to say : «The impudence of these individuals was so great that they marched about with their lictors all over the city, even upon the Capitoline, the religious center of the state, where the

legitimate magistrates are invested with the insignia of their office.» The scandal lay therein that private persons usurped these distinctions inside the pomerium; that is the implication here contained in the words *in urbe et Capitolio*. Likewise LIVY, v, 39, 9, for example, meant that no matter if the rest of the city fell, one could still hold out in the *arx*, and the sense of LIVY, xxxii, 29, 2, is that the wolf not only came into the city but penetrated into its very heart.

It is not necessary to read into the words *Capitolium et urbs* a contrast *arx et pomerium*. There is no indication that they implied such a contrast. On the contrary, TACITUS, *Ann.*, xii, 24, says clearly, *Forumque et Capitolium non a Romulo, sed a Tito Tatius additum urbi credidere*.

The Capitoline, again, is not mentioned in VARRO'S description of the *sacraria* of the Argei, upon which our knowledge of the topography of the four regions chiefly rests. Considered from VARRO'S point of view, as the citadel and not a part of the inhabited city, it did not belong to any of the four regions, but may very well have been included within the pomerium.

A military practice has been cited in favor of its exclusion. The enrollment of troops upon the Capitoline is mentioned by LIVY, xxvi, 31, 11. The consul Marcellus defended himself in the senate against the accusations of the Sicilians: *Ita dimissi Siculi et ipse in Capitolium ad dilectum discessit*. But it does not follow that they actually received their arms there.

On the other hand, there is equally weighty evidence in support of its inclusion. The *comitia curiata* had to be held inside the pomerium (*cf.* MOMMSEN, *Röm. Staatsrecht*, iii, 378) and were held once at least on the Capitoline (LIVY, v, 46, 10). There is no word to the effect that this procedure was considered an irregularity. The *comitia centuriata*, on the other hand, had to be held outside the pomerium, and to the best of our knowledge they were never held on the Capitoline (*cf.* article *Comitia* in PAULY-W., iv, 689).

Furthermore, AULUS GELLIUS, xiii, 14, 4, says, as we have just indicated: *Propterea quaesitum est ac nunc etiam in quaestione est, quam ob causam ex septem urbis montibus, cum ceteri sex intra pomerium sint, Aventinus solum extra pomerium sit*, a statement which shows that at his time the Capitoline was counted among the seven hills of Rome, and therefore it is clear that the Capitoline was included within the pomerium.

Moreover, it is only to be expected that the center of the Roman state religion, the seat of the Capitoline triad, would be located inside, and surely, if the temple was included, it is improbable that the rest of the hill was not. The whole hill is not very large and one cannot conceive of the pomerium crossing it in such a way as to include the half with the temple and to exclude the rest. And finally the Capitol of every other Roman town is located within the pomerium of that town.

In our investigation, therefore, of the evidence of the buildings on the pomerium

connected with the Servian Wall, we commence on the north, following the pomerium around the Capitoline, the Quirinal, the Viminal, the Esquiline and the Caelian to the Porta Capena. Here the line leaves the wall, which passes around the Aventine; the line lies somewhere in the valley between the Palatine and the Aventine, and its exact location can perhaps be determined, so that we may follow it still further. We examine the territory 50 m. inside and outside the wall.

In locating and dating remains that have since disappeared, great help is to be derived also from the PARKER photographs, taken in the 'seventies of the last century and now in the possession of the British and American Archaeological Society of Rome and of the University of Michigan at Ann Arbor, while a certain number of the original negatives, long considered to have been destroyed by fire, found their way in the year 1931 to the Biblioteca Hertziana and the American Academy in Rome.

The northwest slopes of the Capitoline, with which we begin, were carefully investigated in 1930, and in October of the same year PROF. MUÑOZ and DR. COLINI brought out a preliminary report in a well-illustrated publication entitled « *Campidoglio* ». Later most of the remains, which were considerably below the modern level, were covered over again or destroyed, so that very little is now still to be seen standing.

The space between the Via Montanara and the foot of the Capitoline from the corner of the Vie Montanara and Tor de' Specchi to the Via de' Saponari, was occupied by a large edifice, which the excavators thought was probably a *balneum*, in any case a public building, and of which walls of broken-tile or brick facing of excellent workmanship remained above a mass of concrete full of travertine. The facing tiles were from 3½ to 4½ cm. thick, and ranged from 18 to 21 cm. in length, and had vertical joints of about 1½ to 2 cm. Bonding courses of bipedales occurred. In the rubble were a great number of paving tiles. On the basis of its technique and of the stamps¹ on some bipedales it was assigned to the Age of the Antonines. Moreover, repairs in the third and fourth centuries were also recognized. Along the northern wall were several rooms or sections, the largest of which had traces of decoration in stucco and in painting and a mosaic of an unusual pattern in semicircles. There were also remains of a somewhat earlier building with a different orientation on the same site.

Further on toward Sant'Andrea in Vincis are a group of houses. The first of these is directly against the « *balneum* », and does not differ from it substantially in type of construction, although having triangular bricks 16-24 cm. long, 3½ to 4 cm. wide, instead of tiles, and vertical joints of less than 2 cm. It is also connected with walls in reticulate work, and probably belongs to the time of Hadrian. In this group of buildings an angi-

¹ *C.I.L.*, XV, i, 377, b e; 1106, a.

THE "SERVIAN" WALL

MONUMENTS DEFINITELY AUGUSTAN ARE UNDERLINED



Fig. 1.

portus in one place and an atrium in another were easily distinguished, and in one room there were traces of mural paintings that seemed Christian in character. The general type of construction is about the same all through this section; a brick-stamp (*C.I.L.*, XV, i, 1347), dated between 120 and 129 A. D., was found here. There were also signs of later repairs. In one spot, moreover, traces of an earlier building with a slightly different orientation could be seen.

Beyond this point the space from the spur of the *Rupe Tarpea* to the place where S. Andrea in Vincis stood was occupied by a single large *insula* built around a paved *cortile*. Three stories were recognizable. On the north there were a large hall, roofed with a barrel-vault, and a small triangular room, both of which opened on to the *cortile*. The triangular room was apparently divided to provide a mezzanine. On the west were two other rooms likewise covered with barrel-vaults. The east side lay directly against the rock. Here a staircase still retained its steps of travertine. In some of the other rooms part of the stucco facing with traces of wall paintings was preserved. The excavators found reticulate together with excellent brick or tile facings, among which several brick-stamps¹ of the time of Trajan and Hadrian came to light, and they concluded that it had been built in the beginning of the second century and had undergone important repairs around 300 A. D.

Next to this building are a few remains of walls that the excavators pronounced of the second century, and furthermore traces of reticulate work as well as two large blocks of stone of an earlier period. Nearby was a mill with much-worn paving stones and four millstones, the excavation of which was not entirely completed. The western wall had two openings in the middle, and the eastern wall had two arches surmounted by a brick cornice. Between the eastern wall and the Tarpean Rock were other remains of a similar character. The construction according to the excavators was of the second century with some fourth-century modifications.

Somewhat further on, at the corner of the Via Tor de' Specchi and the Piazza Aracoeli, were other remains under a mediaeval wall. There is here a piece of the ancient wall, against which was another with a triangular brick facing, 90 cm. wide, with aggregate of tufa and a few tile fragments. The bricks were about 4 cm. thick and were separated by 2 to 2½ cm. of mortar. With this wall were connected others, and the level of the building to which they belonged lay far beneath that of the modern street. The date was perhaps in the second half of the first century, certainly not earlier.

Moreover immediately adjoining the Victor Emmanuel Monument in the Via Giulio Romano and extending also under the steps of the Aracoeli is a monument very important from the archaeological standpoint, the first example of the Roman apartment house in Rome itself. This *insula* still has five stories. The part that now emerges looked out

¹ *C.I.L.*, XV, i, 1410, 115, and 1007.

on a *cortile*, and formed the eastern wall. The northern and western parts have also been recognized. The back wall against the rock had a reticulate facing in large blocks for four stories, and then, above where it left the rock, it continued with a brick one of the second half of the first century. Most of the building apparently belonged to the second century but there are many traces of repairs. On the ground floor there were shops. The second floor is really a mezzanine, and the third has a similar plan, a string of parallel rooms each covered with a vault. On the other hand the fourth floor has a corridor from which run three smaller corridors, on which the rooms open. The latter are divided into three parts, so that the light entered one part and was carried through doors and openings into the other two. The fifth floor lacks the corridor in the back. Here the building is higher than the rock and extends over it somewhat in the part under the Aracoeli steps. There is just enough of the back wall preserved to indicate quite clearly the existence of a sixth floor.

This building had already been discovered in the excavations of 1819. FEA, in the *Frammenti di Fasti Consulari e Trionfali* (Rome, 1820), cxiv, described it as follows :

Al lato della lunga scala marmorea di Aracaeli verso la cordonata si vedevano degli avanzi di antiche fabbriche male, et inegualmente troncate, e più ancora deturpate da alcune vili casuppole, non che da uno sterrato deforme, ed incomodo ad ascendersi. In tale circostanza rasandosi pria le anzidette casuppole, i muri, e le antiche volte, si è quindi alzato intieramente lungo la scalinata a scarpa un bel muro di cortina, che adorna lo stesso luogo; e si è reso lo sterrato più regolare, ed agevole a salire. Nel taglio delli vecchi muri ho potuto scoprire, che erano quegli avanzi di grandioso edificio addossato a quella parte esteriore del Monte Capitolino verso il Campo Marzo. Si è altresì riconosciuto il detto edificio ornato di pavimenti di grossolano musaico sostenuto da magnifiche sostruzioni, e da muri di buona cortina a varj piani dal basso all'alto della scala. Vi si sono inoltre rinvenuti due grandi mattoni, che hanno il bollo benissimo conservato colla data dei Consoli Hiberno, e Sisenna dell'era volgare l'anno 133. sotto l'Imperatore Adriano, simile ad uno dato dal Fabretti senza dirne la provenienza. He cites FABRETTI, p. 506, no. 125.

In the depression between the foot of the Capitolium and that of the Arx were found remains of a building from the end of the third century A. D. The walls had broken-tile facings with tiles more than 24 cm. long, 2½ to 3½ cm. wide, and separated by the same width of mortar, and with bonding courses of bipedales 3 cm. thick. The existing remains were those of a taberna. This building was noticed at the time of the construction of the new Salita delle Tre Pile and recorded by LANCIANI (*Bull. Com.*, 1872, 143-146). There had been brick-faced walls and traces of pavement in the hering-bone pattern (*« opera spicata »*), which had been used as a sub-pavement over which were mosaics. A well-carved Corinthian capital, a marble antefix, a piece of terra-cotta frieze, and a number of stamped bricks of the Antonine period had been gathered up here. LANCIANI said also that the building technique was that of the second half of the second century A. D. Further up on the hill were other remains including a wall in quasi-reticulate work, incorporated into a building of the end of the first or beginning of the second century A. D. However, in the section that would have corresponded to the pomerium, no remains except

those that were connected with the fortifications have been preserved on the slopes of the Capitoline from a period earlier than the second half of the first century A. D. By reason of rumors to the contrary I discussed the matter with DR. COLINI, and he, too, was of the opinion that the territory apparently was kept clear of habitations, and moreover he, himself, had arrived at the conclusion that the existence of the pomerium supplied the explanation. We know from a *cippus*¹ that the line established by Claudius was probably far out beyond the Capitoline, and so we may assume that the earlier line was located at the foot of the hill.

On the east slope of the Capitoline, in laying the foundations for the Victor Emmanuel Monument, lead pipes had been discovered bearing the names of Q. Maecius Blandus and Caelia Galla (*C.I.L.*, xv, 7489). The shape of the letters was that of the end of the first century A. D.

We now reach the valley between the Capitoline and the Quirinal. The Forum of Trajan with its two hemicycles, built by Trajan's Syrian architect Apollodorus and dedicated in 113 A. D., cut across the line of the pomerium on which stood the "Servian" Wall. It might be that Domitian had already begun the work, for AURELIUS VICTOR (xiii, 5), in speaking of the deeds of Trajan, says: *adhuc Romae a Domitiano coepta forum atque alia multa plusquam magnifice coluit ornavitque*. At a level 0.45 m. below the paving-stones of the eastern hemicycle was found a great mass of concrete containing red pozzolana, tufa and pieces of travertine (*Not. d. Sc.*, 1907, 426). It was oriented differently, forming an angle of 41° with the diameter of the hemicycle, and obviously antedated the Forum of Trajan on the pomerium. The earlier houses, discovered under this forum near the base of the column, are outside of our territory and do not concern us. NIBBY, in his edition of NARDINI'S *Roma Antica* (11, 351), refers to some buildings on the hill slope northeast of the east hemicycle, but these may not have been on the pomerium.

On the southwest side of the Quirinal were found pipes bearing the names of Iulius Pompeius Rusonianus (*C.I.L.*, vi, p. 3261) and Narcissus *Aug. l. ab epistulis* (*C.I.L.*, xv, 7500), but there is no evidence for locating their houses upon the pomerium, although they must have lived somewhere in the neighborhood. Narcissus was probably the celebrated favorite of Claudius, and Pompeius probably *magister XVvirum sacris faciundis* in 204 A. D. (*Pros.*, ii, pp. 397 f., no. 18; ii, p. 207, no. 320; iii, p. 70, no. 489).

Further on are the remains of a vast temple west of the Via della Consulta in the Colonna Gardens. It was erected on the slope of the hill with a peculiar approach consisting of two narrow rows of steps arranged on either side of a free space, leading down 20 meters in front of it. A wall with niches surrounded the temple area, and the cella of peperino with marble facing had, in front and on the side, marble columns of enormous proportions — shafts 17.66, capitals 2.47, entablature 4.83 m. in height. Part

¹ *C.I.L.*, vi, 1231 a.

of the temple was destroyed in the sixteenth century and the rest in 1630, but many sketches of it remain (*cf.* PL.-ASHBY, 491-2; J.-H., I, iii, 422).

The identification of the temple was established, when the lower part of the substructions of the great flights of steps leading to the back of the temple had been uncovered and the brick-work was found to be characteristically Severan, which proved it to be that of Serapis (*cf.* ASHBY, in *The Year's Work in Classical Studies*, 1926-7, 103). The line of the « Servian » Wall passed between the temple and the great ascent.

On the northwest slope of the hill, there were discovered in the Via dei Giardini in 1880, and in the plot between it and the Via delle Quattro Fontane, the Villino Scalambrini, in 1883, remains of the « Servian » Wall, the part just west of the Porta Salutaris. Against the « Servian » Wall on the outside was a reticulate wall, 1.50 m. thick, with two full-centered (*a tutto sesto*), yellow-brick arches, and a large semi-circular niche, 2.80 m. thick. The remains were those of private houses, and were destroyed to make room for the Villino Scalambrini (*cf.* *Not. d. Sc.*, 1880, 466; 1883, 340; *Bull. Com.*, 1888, 15; 1892, 273). From the material they seem to have belonged to the Flavian Age or to the period of Trajan and Hadrian.

The north slope of the Quirinal, the region near the Palazzo Barberini, had been completely transformed at the beginning of the seventeenth century, and the perpendicular drop was changed into an easy ascent. A nymphaeum with well-preserved frescoes was uncovered here, as appears from the *Ms. Barberiano*, xxx, 136, containing an account by TORRIGIO, p. 109 r (published by LANCIANI in the *Bull. Com.*, 1872, 227):

Cum effoderetur humus ad ampliandum Palatium Barberinum Anno P. M. a Christo nato M.D.CXXVIII, repertum est tubi plumbei fragmentum cum inscriptione « Spurij Maximi »; quin et pictura cryptica perantiqua, cuiusmodi solebant in Balneis depingi vel ex Symmacho, quam Emin. Cardinalis Franciscus Barberinus conservari iussit. Nunc vero cum reperta sit alia pars tubi plumbei in qua legitur expressum « x. i. ex officina AGNELLI R. S. ».

Coniicio fuisse omnino ibi Balnea, sic in stae Ceciliae Eccā visuntur ad huc tubi plumbei per quos aqua deducebatur in balnea, et in stae Praxedis tubus extabat cui erat insculptum « Caes. Nervae Traiani Aug. Germ. Dacici cura Phileros et Heraclas ex suo fec. » Quin etc.

The Spurius Maximus, whose name appeared on a pipe found here in 1627, and on two others found later, was probably the L. Spurius Maximus, Tribune of the fourth cohort of the Vigiles under Severus (*Pros.*, iii, p. 258, no. 583), but his name may simply have indicated later work on an earlier property. The north part of the Palazzo Barberini, and especially the long building between the stables and the Vicolo di S. Nicolò da Tolentino, are built over ancient constructions. There was a row of rooms faced with reticulate work without bricks. The rooms were covered with semicircular barrel vaults (*volte a tutto sesto*). The reticulate reached to the second story. Since this structure was built with reticulate, it could hardly be dated later than Hadrian, and might well have been earlier.¹

¹ *Cf.* J.-H., I, iii, 427, and PL.-A., 190.

Further on, at the Palazzo Baracchini on the Via Venti Settembre, opposite the *Ministero della Guerra*, workmen found remains of ancient houses (*Not. d. Sc.*, 1920, 277-279). There was a hall 8.35 m. long with niches and with a sectile pavement in geometric designs, perhaps a library in a private house. The walls were covered with colored marbles. Bricks here collected bore stamps of the time of Hadrian and of Septimius Severus. Accordingly, the reign of Septimius Severus appears to be a *terminus post quem*. Nearby were other brick-faced walls of a preëxisting structure, but nothing more definite has been communicated concerning its date.

In the same neighborhood were found the remains of a large building on the Via Venti Settembre just west of the Via di San Nicolò da Tolentino. This was identified by the discovery of two inscriptions as the house of Alfenius Ceionius Iulianus Kamenius, who in the fourth century was one of the leaders of the anti-Christian party (*cf. PL.-A.*, 155; *C.I.L.*, vi, 1675=31902 found in 1755 or -6, and 31940 found in 1884). The house has a peristyle surrounded by halls and corridors, the walls of which, according to LANCIANI (*Bull. Com.*, 1884, 43-44), had brick-work of the third century and had been repaired in the fourth.

Between the Via delle Finanze and the Via di Sta. Susanna the outside of the city wall was partly hidden by a wall faced with bricks with insets of reticulate. BONI, who published these remains in the *Not. d. Sc.*, 1910, 509, described the type of facing as half-way between the Augustan and the Hadrianic, but he did not give any reasons for his judgment. The type of construction with bricks and reticulate was in general restricted to the period of Trajan and Hadrian.

Moreover, opposite the Palazzo delle Finanze on the Via Venti Settembre were discovered in 1881 (*cf. Not. d. Sc.*, 1881, 89) brick-faced walls, described as of a good imperial period with full-centered (*a tutto sesto*) arches made with large tiles, some of which had stamps, of which the latest were of the time of Hadrian. Whether these remains were within the district in which we are interested or not, is not quite clear from the account in the *Notizie*.

We are now in the region of the Gardens of Sallust. West of the nymphaeum of the Gardens there were many indications of building activity in the vicinity of the "Servian" Wall. Excavations in 1881 (*Not. d. Sc.*, 1881, 372) uncovered a section, against which were walls, faced with brick-work and reticulate, connected with the nymphaeum and having pavements of monochrome mosaics. In 1909, at Via Piemonte, more of the wall was uncovered with remains of brick-faced construction beside it (*Not. d. Sc.*, 1909, 222-3; *Bull. Com.*, 1909, 294). In the next street, Via delle Finanze, were remains of a private house with steps of peperino between two walls of reticulate. Seven meters away there was a brick-faced wall at the end of a hypocaust pavement supported on bipedales. Continuing down to the level of the first row of stones of the urban fortification, the diggers found a curvilinear wall, 80 cm. thick, apparently built to support the thrust of the mound at the

angle formed here by the ancient wall. Furthermore, in the *Piante icnografiche e prospettiche di Roma anteriori al secolo XVI* DE ROSSI has published a monograph of GIOVANNI LUCIO TRAGURITANO. The latter on page 119 says the following :

Un altro vestigio de simili pietre si vede nell'angolo, che forma l'istesso monte passato 'l convento della predetta Madonna della Vittoria sotto la casa della vigna Barberina [Villino Spithoever, Via Piemonte], ch'anticamente dovette servire per sustruzione d'esso monte, argine e muro sopra postovi; nel quale si può osservare, che le pietre non sono poste a piombo una sopra l'altra, ma gl'ordini superiori si vanno sempre ritirando in dentro più degl'inferiori in maniera che formano scarpa a scalini; et in quello si vedono fraposti pezzi di muraglie di mattoni in forma di pilastri fabricate ne tempi posteriori e tagliato esso muro de peperini¹ per fabricarli, dal che viene a verificare quello scrive Dionigi che molte fabbriche erano appoggiate all'antiche mura in maniera che difficilmente si discernessero, e se ne' tempi di Dionigi (che fu al tempo d'Augusto) difficilmente si discernevano, non è maraviglia se dopo tanti secoli se ne vedono così pochi vestigii.

Nos. 88 and 3293 of the PARKER Photographs, here reproduced (Pls. 48, 49), show us remains of ancient buildings with walls faced with brick or tiles, constructed against the « Servian » Wall in the Gardens of Sallust. It is impossible to date them accurately; they are, of course, of the imperial period. These remains have disappeared since the taking of the photograph.

The nymphaeum of the Gardens of Sallust is one of the most prominent monuments that intrude upon the old pomerium. RIVOIRA (*R. A.*, 96-97) dates it in the reign of the emperor Vespasian, because of the four emperors, Vespasian, Nerva, Valerian and Maxentius, whose names are connected with the gardens, the last two are obviously excluded by the type of construction, and Nerva's reign seemed too short. The building has a central elliptical hall covered by a dome of cloister-vault construction with alternately flat and concave sections. The earliest example, however, of this type of construction, dated with certainty, is, according to RIVOIRA, *op. cit.*, 135, the Serapeum of the Campus Martius. We know from CASSIUS DIO (lxvi, 24) that in the year 80 A. D. the temple of Serapis, together with other buildings in the neighborhood, was destroyed by fire. It is probable that when Domitian rebuilt the *Porticus Divorum*, he rebuilt the adjacent temple of Serapis (HÜLSEN, in *Rom. Mit.*, xviii, 1903, 34). Moreover, the nymphaeum and the adjoining four-story building in the Gardens of Sallust have beautiful facing of broken roof-tiles of a somewhat lighter red than those of the Augustan period. These courses are about 3 cm. wide or slightly more, with close horizontal joints and vertical ones of less than a centimeter. Twenty rows have a total height of about 87 cm. There are no bonding courses. The mortar is white and tenacious, the pozzolana was well washed, and the aggregate consists of broken tiles. The upper part of the high building has a facing of similar roof-tiles with insets of reticulate. In short, the construction is typically Trajanic in materials and technique, and therefore cannot be of the time of Vespasian, when facings were made in triangular bricks.

¹ « Peperini » is a mistake; but the material rather resembles peperino here (cf. LANCIANI, in *Ann. dell'Inst.*, xliii, 1871, 57).

On the Quirinal just at the junction of the Via Flavia with the Via Servio Tullio was found in the year 1887 and then destroyed the great concrete base of a temple in the form of a quadrangle 27×33 m. (cf. LANCIANI, *R. & E.*, 417; J.-H., I, iii, 414). The topographers identify it as one of the three temples of Fortuna which gave to the district about the Porta Collina the denomination, *Ad tres Fortunas*. Nothing is said about the probable date of the concrete mass found here. HÜLSEN calls it excellent concrete (*aus vorzüglichem Gusswerk*). Concrete begins in Rome in the second century B. C. (VAN DEMAN, in *A.J.A.*, xvi, 1912, 244), but the adjective *vorzüglich* would apply more fittingly to the concrete, let us say, of Hadrian than to that of earlier times.

We now reach the neighborhood of the Viminal Gate. Of this section of the city the most impressive monument intruding upon the old pomerium of the « Servian » Wall was the Baths of Diocletian, built in the years 305 to 314. With the southeast corner it extended close to the Agger.

Between the Baths and the Agger were found some buildings of the imperial age. LANCIANI reported the brick wall with niches, « contemporary with the Baths », in the *Bull. Com.* for 1876 (171), and on the detail plan attached to the article (pl. 3) he designated the other building between the Thermae and the mound as a construction in brick. It was here in the Agger that Lanciani found the altar of Verminus, dedicated in the first century B. C., now in the Museo Mussolini. The base is still to be seen among the ancient remains at the Piazza dei Cinquecento opposite the Dogana. SÄFLUND¹ has shown that in the Agger here we have two distinct periods without counting the piece on the outside with the reticulate work. Originally the mound had been only half as wide, and blocks from the supporting wall in back have actually been found between the two existing walls, as is shown in the old drawings of Lanciani. In the second period the Agger was increased in width on the inside, and a bracing wall in cappellaccio built behind the resulting mound. Thus it intruded on the territory of the old altar of Verminus. Such altars were frequently rebuilt, and the fact that this one was of the first century does not prove anything in regard to the date of the addition to the Agger, for, though the cult was earlier, it does not necessarily follow that the altar was.² In fact the Romans respected the sites of these old cults, and therefore, in order to spare the one in question, the back of the Agger made a detour at this point. The extreme age and sanctity of the altar were likewise reason enough for its continued presence on the pomerium.

Here at the corner of the Piazza dei Cinquecento and the Via Volturno, in front of the Agger, but separated from it by a space 80 cm. wide, is a mass of concrete, 3.80 m.

¹ GÖSTA SÄFLUND, *De föregivna resterna av Roms kungatidsmur vid Piazza dei Cinquecento och Via delle Finanze*, in *Eranos*, xxviii, 1930, 176-199. I do not accept his date, but I feel he has proved his point about the later origin of the *cappellaccio* wall. His work on

the Servian Wall as a whole, of which this article is really a part, is soon to appear in Italian.

² DR. BOETHIUS said this to me in a conversation and I quite agree.

thick, faced on the inside with reticulate and on the outside with large blocks of Anio tufa (Pl. 60, Fig. 3). There seems to have been more of it at the time of the discovery (cf. *Bull. Com.*, iv, 1876, 171). FRANK¹ ascribes it to the year 49 B. C., when Pompey perhaps repaired the walls against the expected attack by Caesar. SÄFLUND² carries it back to the time of Sulla. However, the mortar is brownish like that in the temple of Julius Caesar, for example, and the reticulate blocks are from 10 to 13 cm. wide, whereas those of the period of Julius Caesar are generally between 4 and 6 cm. across the face and easily to be distinguished from the large Augustan pieces.³ Moreover, the aggregate consists chiefly of Anio tufa, a material which belongs especially to the Augustan Age. I am convinced that it cannot be of the time of Sulla, for reticulate was not used in Rome at that period.⁴ On the other hand it is not at all unlikely that it had something to do with the remodelling of the Agger into a promenade, to which Horace alluded.⁵

Furthermore, on the site of the present *Dogana* were discovered in 1874-5 the remains of a building containing a water tank and a large *cortile* with a marble pavement, upon which opened two rows of cells. The latter received their light through loop-holes. The cells had wall-paintings, of which LANCIANI made a sketch, but the cells were destroyed before he could execute their plan (cf. LANCIANI, in *Bull. Com.*, iv, 1876, 174). Already in 1873 an inscription (*C.I.L.*, vi, 3761=31320), set up by the prefect of the third Cohort of the *Vigiles*, Flavius Magnus, to Septimius Severus, had been discovered in the southeast corner of the baths of Diocletian, an inscription which, as LANCIANI suggested at the time (*Bull. Com.*, 1873, 250-3) had been brought there from a neighboring building. The *Statio Cohortis III Vigilum* is mentioned in the *Notitia* as being at the very end of the sixth region, and in the *Curiosum* as between the *thermae Diocletianae* and the *decem tabernae*. That it stood near the Porta Viminalis is certain, and LANCIANI is probably right in locating it in the building, mentioned above, discovered in 1874-5 inside the Agger, just north of the Porta Viminalis.⁶ The inscription, discovered, as we have said, in the southeast corner of the baths of Diocletian, 38 m. from the Agger, is, to be sure, of such a tenor that it might just as well have been set up in the house of Flavius Magnus as in the station of the *Vigiles*, and it can not be adduced as cogent evidence. Nevertheless, the probabilities point towards the station of the *Vigiles*. Nothing was said as to the date of the structure. Since, however, in the time of Septimius Severus the station was located here, it probably occupied the same spot from the time of Augustus, when the city was divided into the fourteen regions, and when the imperial system of control through the seven cohorts of *Vigiles*, one for each two regions, was first introduced.

¹ *Rom. Buildings*, 121-2.

² *Eranos*, xxviii, 1930, 194.

³ VAN DEMAN, in *A.J.A.*, xvi, 1912, 250-1.

⁴ VAN DEMAN, *loc. cit.*

⁵ *Sat.*, i, 8, 14 f.

⁶ Though he observes, *loc. cit.*, 174: *La mediocre estensione del fabbricato suggerisce l'idea di riconoscervi non una stazione ma un semplice escubitorio*. See also the discussion in P. K. BAILLIE REYNOLDS, *The Vigiles of Imperial Rome*, Oxford and London, 1926, 48-51.

Furthermore, just north of the Viminal Gate, outside the Agger, buildings described as of the imperial period, much restored in the fourth and fifth centuries, occupied the territory where the *fossa* had once been. Something remained of a full-centered arch with polychrome decoration (*Not. d. Sc.*, 1878, 33 f., 65 f.). In 1907 the Ministry of Education had to permit the destruction of a piece of the wall in this region to satisfy the exigencies of the railroad service. The section represented repairs of the Augustan period, it would seem, because many of the blocks had cuttings for swallow-tail clamps, and the blocks that were too small were combined with cement and roof-tiles of the period. On the outside were walls, one of which was partly of oblong, dark-yellow blocks, 6 to 7 cm. by 15 to 22 cm., with one-centimeter joints, and partly of broken tiles, ten rows of which measured about 56 cm. (*Not. d. Sc.*, 1910, 496). The buttresses on the outside of the Agger, constructed in all sorts of tufas, some with swallow-tail clamps, are Augustan repairs (*cf.* TENNEY FRANK, *Rom. Buildings*, 123-4).

Outside the station wall, moreover, at a point opposite the Viminal Gate, there were found many walls of good brickwork, running parallel, vertically arranged in respect to the Agger. They appeared to have formerly reached the Agger and to have been part of private edifices constructed against it just north of the Gate. Here were found a life-size statue, inscribed *Fortunae sacrum Claudiae Iustae*, and an altar dedicated to *Fortuna Primigenia* (*Bull. Com.*, 1873, 201-211).

Outside the Agger, just south of the Viminal Gate, were discovered in the excavations of the 'seventies remains of edifices built against the substruction itself. The discoveries were published from time to time (in the *Not. d. Sc.*, 1876, 56, 74, 99, 100, 188) with a list of many objects found there. There were a cellar with a pavement of black and white mosaic and a private house showing the remains of painted stuccos and of a terra-cotta frieze with reliefs of athletic scenes. This section still remains, but today there are no wall-paintings. There are, however, many walls from many periods built against the Agger substruction, and for the history of the pomerium they are of the greatest interest. The building remains of a late period, discovered on the edge of the *fossa* in 1883 (*Not. d. Sc.*, 1883, 129), were destroyed.

The PARKER photographs, again, have preserved in several plates, which we reproduce here, a general picture of the section now covered by the Piazza dei Cinquecento and the station. One of them without a number (Pl. 50) shows us the territory in front of the railroad station. The wall has been partially uncovered, near it are building foundations, and in the background can be seen the station. These same ancient building remains at the extreme right can be seen again in no. 3185 (Pl. 51) and no. 3186 (Pl. 52). The latter photograph is distinct enough to show a house of the first century, which has walls faced with broken tiles and reticulate and has been built directly against the Agger substruction. Photograph no. 83 (Pl. 53) shows remains said to be from the first century on

the west or inner side of the Agger in the *Mons Justitiae*, and no. 152 (Pl. 54) shows some remains of what is reported to have been a house of the time of Augustus on the east or outer side of the Agger. Another photograph, no. 3323, (Pl. 55), gives a more distinct view of some houses that were under the *Mons Justitiae* on the inside of the Agger near the station. The walls are faced with what are probably broken roof-tiles with insets of reticulate work, — a type of construction very common in the time of Trajan and Hadrian. Likewise in no. 3325 (Pl. 56) we find remains on the inside of the Agger. The wall preserved here conceals an earlier one, part of which can be seen above to the right. The latter appears to have a facing of roof-tiles and reticulate work used together, which, as we have said, suggests the period of Trajan and Hadrian, although it might be somewhat earlier. Two other photographs, no. 1335 (Pl. 57) and no. 1334 (Pl. 58), represent remains of houses with wall-paintings in the fourth style, which probably belong to the second half of the first century.

The appended plan (text fig. 2) gives a view of the section with indication of the approximate age of the various remains of brick-faced or reticulate walls that have been preserved. For the sake of convenience the section north of the Viminal Gate is represented above, and the section south below, whereas actually, of course, they are on a line. At the end of the top line the continuance is indicated. The Viminal Gate was just north of point A. The excavations have not been extended down to the ground level of any period in which we are interested.

A-B is of two periods. Near the ground it has a reticulate facing, above this three courses of broken roof-tiles, and then above reticulate again, except near the wall B-D where instead of the upper section of reticulate the roof-tiles extended up to the same level. The roof-tiles vary in length from 15 cm. to 34 cm., the average width is about 3 cm. The horizontal joints are from $\frac{3}{4}$ cm. to $1\frac{1}{2}$ cm., and the vertical joints from 2 cm. to 4 cm. Above this section is a much later facing consisting of bricks of all sizes and colors. The mortar throughout is much weathered and crumbly, rather whitish or grayish. The aggregate is chiefly tufa, in the lower section are some roof-tiles, in the upper section some travertine is discernible. The reticulate and the type of roof-tile in the lower facing point strongly to the Hadrianic period, but the technique with which the tiles are laid, namely the exceedingly wide joints, appears first in a late period. Earlier tiles or bricks were, of course, frequently re-used in the third century, but never reticulate. The wall is puzzling. I prefer to consider it a poor example of the Hadrianic period with a third-century refacing above.

D-E is a typical wall of the Augustan period (Pl. 59, figs. 1, 2). It has a facing of broken roof-tiles, dark-red in color, of hard texture, about 4 cm. wide, and ranging from 19 to 30 cm. in length. The horizontal joints are very close, the vertical joints about $1\frac{1}{2}$ cm. Within the wall is a red or reddish-brown mortar. The aggregate is of

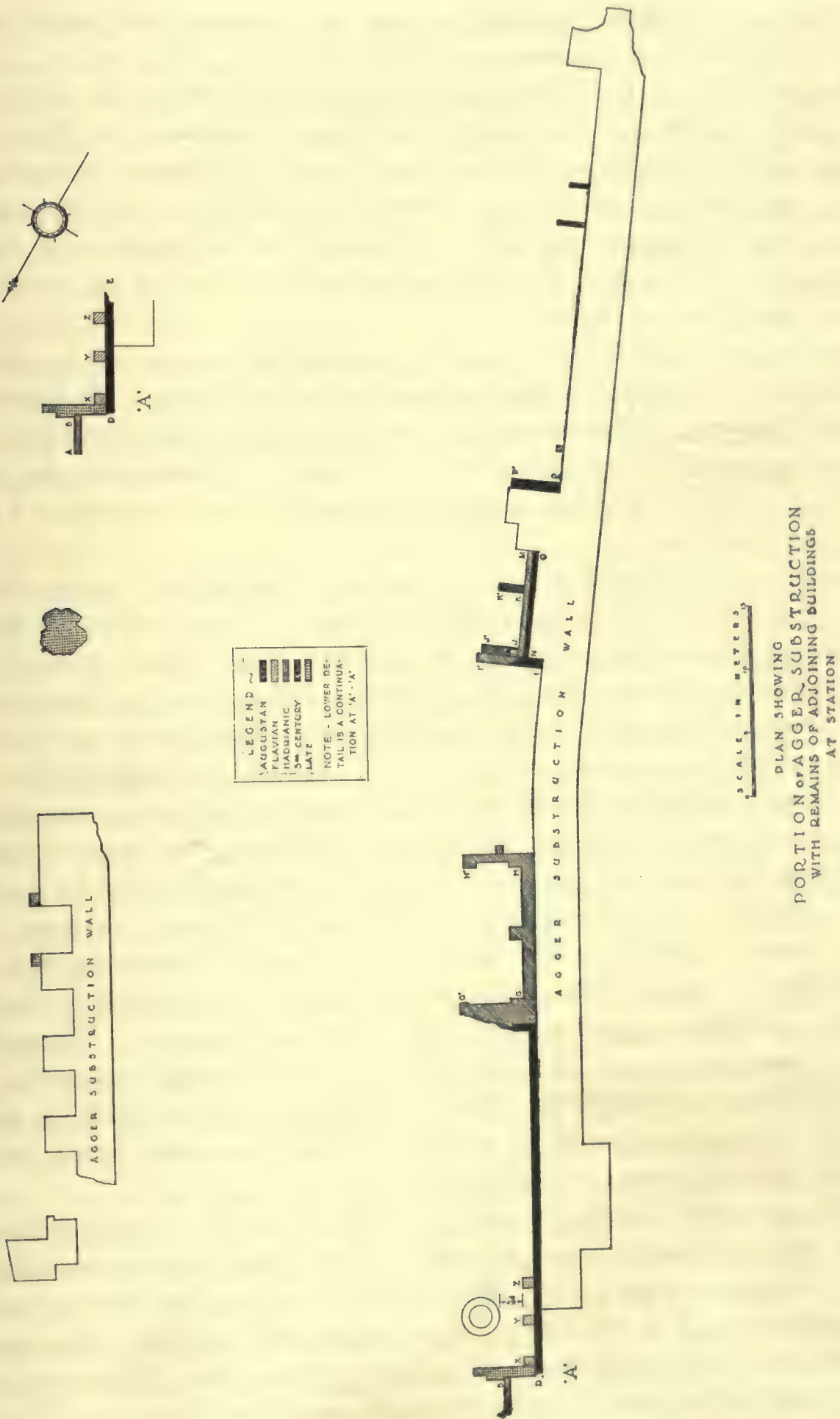


Fig. 2.

broken tiles and tufa blocks. A similar wall used to extend out at right angles from the point J, but not much of it remains now (Pl. 59, Fig. 3).

The pier X (Pl. 60, Fig. 1) has a facing of speckled and red roof-tiles of an average width slightly under 4 cm. The length of the tiles used varies from 12 to 30 cm. The horizontal joints are close, the vertical joints about $1\frac{1}{2}$ cm. There are no bonding courses. The aggregate consists of tufa and tiles or bricks in hard packed rows, and the mortar is whitish in color. Travertine corbels about two meters from the present ground level are still preserved. It is clearly of the second century, and more likely of the period of the Antonines than of that of Hadrian.

The two piers, Y and Z, however, are of an earlier period, as may easily be seen from the lower level of the travertine corbels preserved on the first of them. The construction of the two is identical. They are faced with speckled triangular bricks about 3 cm. wide with close horizontal joints and vertical joints of $1\frac{1}{2}$ to 2 cm. Broken bricks also appear. The mortar is dirty white, and the aggregate consists of both bricks and tufa. I assign them to the Flavian Age.

Near the point Y is a round travertine construction, 3.69 m. high and having a diameter of 3 m. (Pl. 60, Fig. 2). On the north side is an opening, 0.65 m. \times 1.10 m. At the time of the excavations in the 'seventies many lead pipes were found leading to it and entering by small apertures on the side (*Not. d. Sc.*, 1878, 92). It stands near the channels of the Marcia, Tepula and Julia, and LANCIANI represents it on his *Forma Urbis* as a *castellum*, that is to say "a precipitation chamber of an aqueduct". However, the level is not right. It may have had something to do with the hydraulic system in the building occupying the spot in the early empire, to which period by virtue of its construction it must be assigned.

The walls G-G' and G-H, and also H-H' originally, although the latter was much repaired in mediaeval times, have a facing of tiles of about 3 to $3\frac{1}{2}$ cm. in thickness. The tiles are between 22 and 30 cm. in length and tend to assume the triangular form. In color they are light red and yellow. The horizontal joints are close, and the vertical ones about one centimeter or somewhat more. The mortar seems brownish. The aggregate is tufa in closely packed rows. A bonding course of *bipedales* occurs occasionally. It is good work and belongs to the period of Hadrian. The tops of arches, intended to support another floor, in the corners and in the middle of G-H reach to a point slightly less than two meters above the present ground level.

I-I' is again a wall of more than one period (Pl. 60, Fig. 4). Along the bottom is reticulate work, which near the Agger substruction rises suddenly, making a jagged line, to the top of the wall as we have it now. Here it rests against a tower, that emerges from the Agger substruction. This reticulate work consists of smoothly cut blocks, 8 cm. square, while the mortar is rather brownish in color, and the aggregate is tufa. The second period above this consists of a facing of broken roof-tiles between 3 and 4 cm. wide. The first

period is Augustan and the second Hadrianic. Near the end away from the Agger are some restorations of the third century.

J-J' has a facing of broken red roof-tiles, speckled bricks, and broken yellow *bipediales* of the Severan type. The broken *bipediales* are generally 2½ cm. in width, but the others run up to 3½ cm. The technique is still good with rather close horizontal joints and vertical joints between 1½ and 2½ cm. The texture of the broken *bipediales* seems to be poor, for they crumble into powder easily. The mortar is brownish red, and the aggregate is mostly tufa, with some bricks however. It belongs to the late third century or the period of Diocletian. The wall K-K' is similar.

The wall J-M completely hides N-O except for a small space about 4 m. from the ground. The Director of Antiquities, HIS EXCELLENCY COMM. ROBERTO PARIBENI, gave me permission to climb up by means of a ladder to the top of the « Servian » Wall. I found that N-O was faced with reticulate blocks, 8 cm. square, and had aggregate of tufa and brown mortar (Pl. 60, Fig. 5). In front is the wall J-M, which has a reticulate facing up to 2.20 m. above ground, and from there up roof-tiles. The reticulate blocks are 7 cm. across; the roof-tiles are red and compact, from 3 to 4 cm. wide, and generally about 28 cm. long, although some from 19 to 42 cm. occur. The mortar is red, and the aggregate is of tufa, chiefly, and of roof-tiles or bricks. There are no bonding courses. The wall J-M seems to be Hadrianic and the earlier wall N-O is Augustan.

From this it appears that the space J'JM originally represented an Augustan room, it was then rebuilt in the period of Hadrian, and in the third century was divided into two smaller rooms and rebuilt again.

P-P' is a wall with a fine reticulate facing of blocks about 9 cm. across. About 65 cm. above the ground level it sets back 16 cm.; 93 cm. above this it sets back again and then continues straight up. The aggregate is tufa and the mortar is brown. It is probably Augustan but may be somewhat later.

The excavations were continued toward the south in 1877. Where the *fossa* had been filled in there were discovered a number of rooms, identified as *scholae* by the excavators. Stamped tiles of the end of the second century were extracted from the walls, but the buildings belonged rather to the end of the third or to the beginning of the fourth according to the excavators. The foundations, however, seemed to be older, of the end of the second perhaps. One of these *scholae* was identified by an inscription as that of the lime-burners, the *calcarienses* (*Not. d. Sc.*, 1877, 13 f., 206-7, 268-9). Further to the south was a section excavated in 1870 (*Bull. dell' Inst.*, 1870, 46-8). Against the Agger there leaned a building of some importance, the walls of which were destroyed as they were uncovered. It appears to have been of the first half of the second century. On the basis of the stamps on tiles taken from the walls, it was reported as built in 123 and restored in the period between 132 and 137. Brick-stamps, of course, do not date the construction, but serve simply as

a *terminus post quem*. If, however, all the stamps seem to be of the same general period, we are justified in assuming that the building was erected at the same period or shortly afterwards. But it is impossible to generalize from one or two bricks, — even from a considerable number, — because old material was frequently re-used.

Inside the Agger just south of the Viminal Gate were discovered in the excavations of 1876-7 a number of private houses and an *oratorium*. There is a road that runs parallel to the Agger. Against the latter, facing on the street, was a shop. In the second half of the fourth century, after the road had long been blocked up, the Christian *oratorium* was built over the road so as to include the earlier shop. DE ROSSI, who described the *oratorium* in *Bull. Arch. Christ.*, 1876, 14 f., 37 f., 46-53, pls. 6 f., dated it from the frescoes. His drawing of the early shop walls illustrates what is probably a facing of reticulate with bands of roof-tiles, or rather a roof-tile facing with insets of reticulate work, a type of construction common in the time of Trajan and especially Hadrian. Against the Agger here, too, were a series of arches, constructed (LANCIANI, *Bull. Com.*, 1876, 172) in the I. or II. century to relieve the thrust of the mound. Further, there were indications of private edifices including the house of Gemina Bassa c. f., the house of Q. Munatius Celsus, identified each by a lead pipe of the beginning of the third century according to DRESSEL (*C.I.L.*, xv, 7463, 7497), and the house of L. Naevius Clemens, identified by a lead pipe of the end of the first century according to DRESSEL (*C.I.L.*, xv, 7499). Another house had walls faced with reticulate and brick, hence of the first half of the second century at the latest (*Not. d. Sc.*, 1876, 42). In the 'sixties remains of a large *nymphaeum* and a large house of at least three stories, presumably of the period of the Antonines, were discovered between the Agger and the street parallel to it. (*Bull. dell'Inst.*, 1869, 212-3; *Ann. dell'Inst.*, 1871, 61-3). The *nymphaeum*, discovered in 1862, was adorned with statues. In 1869 the excavators uncovered all of 14 rooms of the second building with good brick work (or tile-brick work), adorned with frescoes of small figures and animals. The three floors which can be distinguished communicated with each other by means of a stairway with travertine steps. In a small room under this stairway DE ROSSI and LANCIANI saw many *graffiti*. The excavators dated both of the buildings in the time of the first Antonines because of brick-stamps found there. Moreover, in the *nymphaeum* an over-life-size statue of the elder Faustina was discovered, and in the sixteenth century also a bust of Antoninus Pius had been found in the immediate neighborhood (*cf.* FEA, *Misc.*, i, 250). West of the street was another private house with wall-paintings, dating apparently from the third century, described in the *Bull. Com.*, 1872, 86-88 with a plan on an accompanying plate.

Further south, in front of the Aquarium at the Piazza Manfredo Fanti, is a famous piece of the « Servian » Wall with two towers on the inside. On the outside are remains of buildings. The piece preserved is about 18 m. long and for about half its length it

is concealed on the outside by a concrete wall, one meter thick, faced with reticulate, and for the other half by a concrete wall, 1.30 m. thick, of which all but a small piece of the roof-tile facing has been lost. The reticulate blocks are 7 cm. across, the aggregate consists of tufa and tile fragments, and the mortar is greyish-brown. Tufa quoins also (24×7 cm.) are used. A niche about 90 cm. wide is still visible, of which the vault is formed by voussoirs of hard compact red tiles, 28 or 29 cm. long, 3 cm. wide at the top and slightly tapering toward the bottom. All this suggests the period of Trajan or Hadrian. In the other wall the aggregate is likewise of tufa and tile fragments, but the mortar is grey-brown and less clean. There is the beginning of a niche with a few rows of a yellow-tile facing, of which nine courses measure 49 cm. The tiles are $3\frac{1}{2}$ to 4 cm. wide. The horizontal joints are about one centimeter, whereas the vertical ones are from $1\frac{1}{2}$ to $1\frac{3}{4}$ cm. It seems to belong to the period of the Antonines.

About seven meters to the east, *i. e.* about seven meters outside and away from the wall, is an ancient room, (6×4 m.), 1.60 m. below the present ground level. It is oriented from east to west. At its west end it terminates in a hemicycle, the curve of which begins 4 m. from the east end. In the east wall at the northeast corner there is a doorway. In the east wall, 45 cm. thick, the mortar is rather grayish, the aggregate consists of tufa blocks and tile fragments, and the facing is of reticulate, of which the blocks are from 9 to 11 cm. across and not always perfect squares. The size of the reticulate especially points to the Augustan Age. Moreover, the floor is covered with a mosaic of the Augustan type, little limestone *tesserae*, imperfect squares, one centimeter across and about 0.6 cm. high. In the north wall, 70 cm. thick, and in the hemicycle the aggregate consists of tufa and tile fragments, the mortar is brownish, the facing is of triangles and broken tiles together, so that fronts vary from 14 to 28 cm. in length. They are yellow and light red in color and about 3 cm. wide. The vertical joints are $1\frac{1}{2}$ to 2 cm. and the horizontal joints one centimeter or less. The total height of 20 courses is 1.04 m. This part is probably of the time of Hadrian and shows later rebuilding. Part of the arch over the door is preserved. The voussoirs are *bessales*, 4 cm. thick, mottled like Neronian bricks, and would belong to the later period, not to the period of the wall in which the door stands.

Eight meters beyond this point can be seen still more remains, much rebuilt in modern times. The foundation resembles a *piscina* oriented from north to south with steps leading down from either end of the south wall. The *piscina* was about 6.50×3.75 m., and had a coating of other material over the triangular bricks, with which the walls were faced. The bricks are mottled, about 27 cm. long, 4 cm. wide; the vertical joints are about $1\frac{1}{2}$ cm. and the horizontal joints about one centimeter. Four courses measured 21 cm. The aggregate consists of tufa and tile fragments. It is quite clearly Neronian. To the east a smaller room (2.75×4 m.) opens on the *piscina*. This room is faced with reticulate blocks, 7 cm. across, and is of the same period.

The Macellum Liviae also with its surrounding porticus reached over to the pomerium, if we accept the identification with the remains southwest of the Piazza Fanti as now seems certain. CASSIUS DIO, *lv*, 8, 2, narrating the events of the year 7 B. C., says that Tiberius dedicated the precinct of Livia in honor of his mother: τὸ τεμένισμα τὸ Λίβιον ὀνομασμένον καθιέρωσε μετὰ τῆς μητρός. By τεμένισμα τὸ Λίβιον ὀνομασμένον he, of course, meant the Macellum Liviae. The remains consisted of an open court (80 m. × 30 m.) with a fountain in the middle. The court was surrounded by shops and an arcade. The construction of the walls showed evidence of work in different periods. We know from an inscription (*C.I.L.*, vi, 1178) that it was restored between 367 and 375 by Valentinian, Valens and Gratian. The long side, still preserved, was constructed in reticulate, which perhaps belonged to the original building, whereas the smaller sides were faced with brick, where stamps from the time of Hadrian and the Antonines were found.

According to the account given in the *Bull. Com.*, 1874, 217, the *macellum* was partly abandoned as a market at the beginning of the third century, when all the southern part, *i. e.* the section between the fountain and the shops, was invaded and occupied by private houses. Such houses had pavements of black and white mosaics. There were baths and hypocausts, traces of stairs to upper floors, etc. These houses, too, intruded upon the old pomerium.

In 1882 some foundations were discovered further on, just inside the wall, in the Via dello Statuto, together with a lead pipe bearing the name of Aelia Athenais h. f. (*C.I.L.*, xv, 7377) of about the middle of the third century of our era. There seems to have been a private house here.

The « Servian » Wall is pierced between the Via Merulana and the Via Leopardi by a building constructed in reticulate work of blocks 6 cm. square, obviously of the Augustan period, and decorated with frescoes in the third Pompeian style. This well-known building, the so-called Auditorium of Maecenas, (24.10 × 10.60 m.), is seven meters below the ancient level, and has an apse to which seven rows of steps lead up. There are two pavements, of which the original earlier one is a white mosaic. This building is considered the earliest monument on the pomerium, so far as at present known, in this region of the city.

Somewhat to the south, where now is the Via Carlo Botta, — that is, outside the walls but still within the pomerium, — the foundations of an ancient structure in large tufa blocks were uncovered in 1887 about two meters below the modern level. Right next to it was found a great deposit of terra-cotta, comprising fragments of statuettes and vases, one of which carried an archaic inscription to Minerva (*Not. d. Sc.*, 1887, 179-80; *Bull. Com.*, 1887, 154-6, 166-71, 192-200). Moreover, in the same neighborhood a statue of Minerva had been found in 1867 (HELBIG, in *Bull. dell'Inst.*, 1867, 141). These considerations induced GATTI to identify the remains as the temple of Minerva Medica, which is enu-

merated in the regionary catalogues among the landmarks of Region V. CICERO referred to this cult in *De Div.*, ii, 123 : *et si sine medico medicinam dabit Minerva, Musae scribendi, legendi, ceterarum artium scientiam somniantibus non dabunt?* he asked, ridiculing those who put their faith in dreams. In the remains of the building there was no indication that it was republican ; but if it is that of Minerva Medica, we are dealing with a republican sanctuary, for a temple may perhaps be destroyed completely and rebuilt on the same spot, but it is not easily moved.

However, as HÜLSEN points out (J.-H., I, iii, 353), the terra-cotta find might have been connected with the old potteries of the Esquiline. After all there was only one inscription to Minerva among the remains, and that does not settle anything.¹

The problem is, however, settled after LUNDSTRÖM'S excellent article on the Amphitheatrum Castrense, the Lacus Orphei and the boundaries of Region V (*Undersökningar i Roms Topografi*, 3-56, Gothenburg 1929, Eranos' Förlag, = vol. ii of *Svenskt Arkiv för Humanistiska Avhandlingar*).² He has demonstrated that what topographers have hitherto been calling the Amphitheatrum Castrense is not an amphitheater at all, but a *ludus*, similar in form to the Ludus Magnus, that, moreover, it was probably the Ludus Matutinus, and was located near the Vivarium so that it was not necessary to drag the animals through the city every day for practice hunts. The real Amphitheatrum Castrense has disappeared, but it must have been near the Praetorian Camp, where there was another *vivarium*. He has demonstrated, moreover, that the *Macellum Liviae*, the *statio Cohortis II. Vigilum*, and the *horti Pallantiani* represent a curved line, extending from the Porta Esquilina to the Porta Tiburtina, that no landmark of the fifth region lies south of this line, and that the boundary line must have passed near here because the Cohors II. Vigilum had to be in a position to serve the two adjacent regions to which it was assigned. The Lacus Orphei lay inside the « Servian » Wall, as is proved by MARTIAL'S poem (x, 20 (19)), by the name of the inhabitants of one *vicus*, who were called *Orfienses*, and by the epithet *in Orfea* attached to three of the churches there. Thus it is clear that the order of enumeration for Region V in the catalogues is this : it begins with the *Macellum Liviae* near the « Servian » Wall, passes along the southern boundary to the east, then goes up north to the neighborhood of the Praetorian Camp, *i. e.* to the Amphitheatrum Castrense, the Campus Viminalis and the Subager, which leads us back to the « Servian » Wall, then crosses the wall to Isis Patricia on the Vicus Patricius and the Lacus Orphei, a fountain which gave its name to the *vicus* at the head of which it stood, namely the *vicus* which in that section of Rome was the continuation of the Clivus Suburanus. With LUNDSTRÖM'S

¹ In *Not. d. Scav.*, 1887, 180, there is mentioned also a t.-c. head of Minerva, there taken as confirmation of the identification (*cf. Bull. Com.*, 1887, 155). The bronze statuette there described does not appear conclusive.

² A good review of the book by DR. A. BOETHIUS, Director of the Swedish Archaeological Institute in Rome, has appeared in Italian in *Athenaeum*, ix, 1931, 108-127.

exposition, the Region V Esquiliae really gets up on the Esquiline and the Region II Caelimontium really gets up on the Caelian. It is now quite clear that Minerva Medica, which is enumerated just after the Subager and just before Isis Patricia, could have lain only within the wall somewhere between these two. The cult of Minerva Medica was naturally located within the pomerium. In the republican period, of course, outside the wall lay the dreary neighborhood of the Esquiline cemeteries, and there was not much building activity there until the empire.

Thus the remains in the Via Carlo Botta are still unidentified. Unfortunately they have been destroyed and we have no very definite description of them. GATTI (in *Bull. Com.*, 1887, 154) reported them as oriented from east to west, whereas LANCIANI has represented them on his *Forma Urbis* (30) as oriented from north to south.

Likewise on the *Forma Urbis* (30), somewhat further on, LANCIANI represents the temple of Isis and Serapis on the Via Buonarroti directly in the path of the « Servian » Wall. For this there is absolutely no foundation, for the accounts¹ of the excavations in 1653 locate just below the Caelian and behind the church of Ss. Marcellino e Pietro the remains of a temple in the Egyptian style, which, it seems, probably was that of Isis and Serapis, or that of one of them, because there were undoubtedly separate temples for each divinity, though perhaps joined, as was customary.²

Furthermore, the « *Arcus ad Isis* » of the Haterii Relief doubtless stood on the Via Labicana. Architectural and sculptural fragments have been found scattered over a large area, sometimes well removed from the location that we have indicated, but that proves nothing. They might easily have been scattered about the neighborhood after the destruction of the temple, although plenty of them were found on the site itself.

This is probably the temple of Isis and Serapis that gave its name to Region III, which must, accordingly, have extended outside the « Servian » Wall. This extension is clear, too, from the location of the statio Cohortis II. Vigilum, as we have pointed out above. LUNDSTRÖM has exploded the prejudice that the « Servian » Wall marked a region boundary here.

However, if we assume that the temple stood where the excavation reports located it, as I believe is unavoidable, the remains in question were not on the pomerium but further to the east.

Similarly on the *Forma Urbis* LANCIANI represented the Ludus Magnus more or less in the path of the « Servian » Wall, whereas that is impossible. It is mentioned in the *Cu-*

¹ Anonymous article, printed after LUNADORO, *Relazione della Corte di Roma* (1664), p. 62: *Il sacello della dea Iside fu scoperto l'anno 1653 in un orto sotto il monte Celio presso la chiesa di S. Pietro e Marcellino, etc.* (J.-H., I, iii, 304).

BARTOLI (*Mem.* 2 in *FEA, Miscell.*, i, 222) after men-

tioning a discovery in the garden of the Ss. Apostoli, continues: *Più oltre dalla parte di dietro Ss. Pietro e Marcellino, quasi nel medesimo tempo, fu trovato nel cavarsi un tempio egizio, etc.*

² Cf. the temple of Venus and Rome, and the temples of Isis and Serapis in the Campus Martius.

riosum in Region III immediately after the Colosseum, and must have been nearby. The *Notitia*, it is true, puts the Ludus Matutinus after the Colosseum without mentioning the Ludus Magnus, but this is an obvious mistake, because both the *Curiosum* and the *Notitia* had already mentioned the Ludus Matutinus in Region II. LANCIANI was not connecting the Ludus with any remains.

After we pass the piece between the Via Buonarroti and the Via Leopardi, the course of the wall is not quite certain until we reach the Caelian. DR. SÄFLUND, whose book on the « Servian » Wall is about to appear, thinks that it lay further in than LANCIANI indicates, and that it passed through S. Clemente. He connects it with the piece of wall found on the Via SS. Quattro just north of the church of the Quattro Coronati. Therefore we shall now study the remains existing in this region.

The Forum Petronii Maximi is located just outside the line of this wall northeast of S. Clemente, because, of the two inscriptions, *C.I.L.*, vi, 1197 (443 A. D.) and 1198 (443-455 A. D.), referring to it, the latter was found there. Petronius Maximus was emperor in 455 A. D.

The Summum Choragium need not concern us, since it lay between S. Clemente and the Colosseum and not where LANCIANI has shown it (*cf.* PLATNER and ASHBY, 502-3).

Under S. Clemente itself are the remains of a house containing a Mithraeum. There is also a room faced with broken tiles and separated by a space about $1\frac{1}{2}$ m. wide from the wall in big tufa blocks. The facing is of hard, compact, red tiles about $3\frac{1}{4}$ to 4 cm. wide and from about 16 to 28 cm. long, of which twenty rows have a total height of *ca.* 102 cm. The horizontal joints are close and the vertical ones of about one centimeter. The ceiling is of stucco. Judging from the building materials the room appears to be of the time of Trajan. The wall of big tufa blocks is, to be sure, of the same material as the « Servian » Wall, and at times it has been identified with that fortification (*cf.* J. GORDON GRAY, in *Journ. of Br. and Am. Archaeol. Society of Rome*, Vol. iv, No. 1, 1906-1907, 101). However, it does not necessarily follow that because the material is the same, this piece is another section of the « Servian » Wall. We should really not expect to find the wall so far in, in this situation, since the general line of the wall on both sides lies much further out. Furthermore, if this were the wall, it is strange that the buildings were not erected against it as we have noticed they were elsewhere. In all the section at the station, for example, the houses are actually built against the Agger substructions; here, on the other hand, we have a free space of $1\frac{1}{2}$ meters between the house and the wall in tufa blocks, an arrangement which would have been suitable only if the tufa wall belonged to some rather pretentious building.

On the Caelian, remains of the Castra Peregrina have been found southeast of Santo Stephano Rotondo under the convent of the Little Company of Mary. The earliest period contained reticulate work with cubes 8 cm. across, but the description of the building

materials was not definite enough to fix the period closely. T. ASHBY and P. K. BAILLIE REYNOLDS, in their account in the *Journal of Roman Studies*, xiii, 1923, 152-189, say that the evidence of construction and of coins found on the site indicated that it was occupied continuously from the first to the fourth centuries. The stamps of bricks lying around loose extended from Vespasian to Diocletian.

Part of the remains can still be seen under the north wing of the convent. Among them is a late wall, which includes a short stretch of an early wall faced with reticulate 7 to 8 cm. across. In this early piece the mortar, of which the pozzolana was unwashed, is brownish-red and earthy, and seems Augustan. ASHBY and BAILLIE REYNOLDS felt that the whole institution of the *frumentarii* went back to the Augustan Age, but they did not date the reticulate more definitely than to place it in the first century.

Against this conclusion, however, one category of evidence requires mention. Three skeletons in tile graves of a type that would be either very early or very late, were found here, one under the drain and two under the early foundation wall which supported a row of columns. A little to the southeast, moreover, a tufa sarcophagus and two sepulchral inscriptions came to light (*cf. Bull. Com.*, 1905, 109-10). ASHBY and BAILLIE REYNOLDS raised the question whether these might not indicate that the « Servian » Wall was further in than had hitherto been suspected.

But the « Servian » Wall can hardly run anywhere else than along the top of the slope, and a piece of it was preserved not far away, as LANCIANI indicates (*Forma Urbis*, 36). The graves were in virgin soil, which excludes the possibility that the section had been filled in later to straighten the line.

The grave stelae found in the *Castra Peregrina* cannot have belonged there. They read as follows :

⊖	
SEX · SELIVS SEX · L	
EPAPRODITVS	
SEX · SELIVS SEX · L	
NICEPORVS	
SELIA · SEX · L · NICE	
IN · FR · P · XIIX	
IN · AGR · P · XX	
	CONIVGI
	IN · FR · P · XI
	IN · AGR · P · XX

The words « IN FR(onte) P(edes) XIIX IN AGR(o) P(edes) XX » show that the stones stood on a road, and represented public, not surreptitious, burials ; and on such a road there would have been many more graves than the two here attested. Then the names Epaproditus and Niceporus do not suggest celebrities for whom special exemption might be made. The sarcophagus might well have been brought there any time in the Middle Ages or the Renaissance.

The actual graves on the other hand are probably early, *i. e.* republican, and not shoved under the « Servian » Wall at a later date, as was the case in regard to a skeleton found in the Villa Spithöver. Burials, however, occasionally did take place inside the pomerium in the case of certain persons who had deserved well of the state.¹ The Vestal Virgins, too, were buried inside the city. Moreover, the house of the Valerii was just to the east of the Castra Peregrina, as is confirmed by many inscriptions from the third and fourth centuries. We do not know when they came into possession of the land, but there is no evidence to show that they had not been there long before. The Valerii were an old patrician family, who had been prominent all through the Republic, and it is possible that they had possessed also the plot that the Castra later occupied. Of the Valerii it is well known that they enjoyed the unusual privilege of burial within the pomerium.

Near the Porta Capena was the temple of Honos and Virtus, which belonged to the third century B. C. and therefore cannot possibly have stood on the pomerium.

After the Porta Capena the pomerium of the time of Augustus left the wall and passed somewhere between the Aventine and the Palatine and remained there until the time of Claudius. Most of the valley was occupied by the Circus Maximus, which, trial diggings have shown, was, at one period, flanked on either side by a street; so that it is possible to ascertain its size with accuracy. The resulting figures correspond with the size of the Circus Maximus of the Augustan Age as described by DIONYSIUS of HALICARNASSUS (iii, 68).² The original pomerium according to TACITUS (*Ann.*, xii, 24), however, ran as follows: *a foro boario, ubi aereum tauri simulacrum aspiciamus, quia id genus animalium aratro subditur, sulcus designandi oppidi coeptus, ut magnam Herculis aram amplecteretur; inde certis spatiis interiecti lapides per ima montis Palatini ad aram Consi, mox curias veteres, tum ad sacellum Larum, inde forum Romanum.* The great altar of Hercules stood in the Forum Boarium not far from the *carceres* of the Circus Maximus, *i. e.*, at the northeast corner of the Piazza di Bocca della Verità (PLATNER-ASHBY, 253). The altar of Consus stood at the southeast end of the permanent *spina* of the Circus Maximus. Therefore the line of the original pomerium on the side toward the Aventine lay according to TACITUS in a region which at the end of the Republic was occupied by the Circus Maximus. But if so, the presence of the circus would have constituted a violation of the pomerium, and at least parts of it had been there already for centuries. It would seem from this fact even probable that TACITUS was mistaken. The remark about the stones *certis spatiis* is not to be taken seriously, for they obviously were not to be seen in the Circus Maximus. TACITUS assumed for the original pomerium a custom which prevailed in the first century A. D., when *cippi* were set up at regular intervals to mark the line. No such *cippi*, however, antedating the time of Claudius, have ever been found.

¹ Cf. MARQUARDT, *Privatleben der Römer*, 2d. ed., i, 361.

² Cf. P. BIGOT, in *Mél. d'Arch. et d'Hist.*, xxviii, 1908, 229-231, and *Bull. Com.*, xxxvi, 1908, 241-253.

On the other hand, the line of the original city was a different one, not so far out from the Palatine, according to VARRO as quoted by SOLINUS (i, 17): *Nam, ut adfirmat Varro auctor diligentissimus, Romam condidit Romulus, Marte genitus et Rea Silvia, vel ut nonnulli Marte et Ilia: dictaque primum est Roma quadrata, quod ad aequilibrium foret posita. ea incipit a silva quae est in area Apollinis, et ad supercilium scararum Caci habet terminum, ubi tugurium fuit Faustuli.*

Moreover, in the hundred years before TACITUS wrote, the valley between the Aventine and the Palatine had been swept by the great fire of Nero, had undergone many changes, and had been the seat of extensive building and rebuilding activities. The Circus, for example, had been enlarged, and the spectators' seats ran up on to the Aventine and the Palatine. In the passage quoted above, TACITUS was evidently describing the course followed by the Luperci of his time (PLATNER-ASHBY, 393). They, to be sure, ran around the old Palatine city, but their course had been determined more by the obstacles that the buildings on the slopes of the Palatine had created than by the line of the ancient pomerium. They would quite naturally pass through the Circus, because the older street that traversed the valley had been covered and built over. In the day of TACITUS there was no open street here.

Since, however, at the end of the Republic, the valley was occupied by the Circus Maximus, we must seek the pomerium between the walls of the Palatine and the Circus of that period. On the other hand, under the church of Sta. Anastasia, for example, are remains of a building from the Augustan Age (G. LUGLI, *Zona Archeologica*, 270; P. B. WHITEHEAD, in *A.J.A.*, xxxi, 1927, 406). A glance at LANCIANI'S *Forma Urbis* is sufficient to show that for all practical purposes the pomerium at the end of the first century B. C. must have coincided with the road that ran through the valley alongside of the Circus from the Porta Capena to the Forum Boarium. It is the only free space. This is also a line very close to that indicated by TACITUS, — a line, of which very likely the Luperci's route of his day had been an approximation. Elsewhere the pomerium frequently appeared as a street following the course of the wall,¹ and that it should appear here as a street, is not at all extraordinary.

An examination of ancient building remains on the pomerium has yielded certain results. On the Capitoline slopes building activity, as far as archaeological evidence is concerned,

¹ LANCIANI (in *Bull. Com.*, 1873, 145), after speaking about the *insula* on the Via Giulio Romano: *Quivi incontro, riedificandosi nella primavera dell'anno 1871 la casa che forma angolo con la Piazza dell'Aracoeli, fra i num. 55 e 56 si scoprì alla profondità di 6 m. incirca, il pavimento dell'antica strada che dovea congiungere le porte Carmentale e Ratumena: scoperta di grande importanza perchè ci permette di fissare con certezza non solo l'ampiezza*

dell'antico pomerio, ma puranche la elevazione delle mura del Campidoglio, sul piano del Campo Marzio. Cf. also Bull. Com., 1876, 132-4, where LANCIANI observed about the Agger: Che tanto sull'orlo estremo della fossa, quanto a piedi del terrapieno corrono due strade parallele, per le quali le tre porte eran poste in comunicazione diretta, sì all'esterno come all'interno della città, etc.

began in the second half of the first century A. D. The region of the later Forum of Trajan was invaded shortly before the reign of that emperor. On the north slope of the Quirinal, remains of walls faced with brick or with reticulate of the first and early second centuries had been preserved. It is difficult to date them exactly. Certainly the periods of Trajan and of Hadrian were represented, and to the period of Trajan belongs also the famous *nymphaeum* in the Gardens of Sallust. When we reach the neighborhood of the Porta Viminalis, however, we find plenty of Augustan work in the form of walls of private houses built against the Agger substructions.

As this general section is still preserved, we are here on firm ground. On the Esquiline in Region V there are some small traces and two large monuments from the Augustan Age, namely the Macellum Liviae and the so-called Auditorium of Maecenas. On the Caelian the earliest seem to be the Castra Peregrina, likewise apparently from the Augustan Age.

However, outside the wall on the Esquiline were vast cemeteries in the Republican period, — well authenticated in the excavations of the last century, — which remained until Maecenas bought the property and made it into a garden. HORACE refers to this (*Serm.*, i, 8, 14-16):

*Nunc licet Esquilis habitare salubribus atque
Aggere in aprico spatiari, qua modo tristes
Albis informem spectabant ossibus agrum.*

The word *modo* indicates that the change had taken place only a short while before. HORACE began writing in 41 and published the first book of the *Satires* probably in 35 B. C., so that we may consider the change as taking place between those years. It does not necessarily follow, however, that the pomerium was disturbed then; the passage merely shows that, before that time, at least that section lay outside the pomerium, because a cemetery, of course, could not be located within the city. In other words we have proof that at a time even after the death of Julius Caesar the pomerium had not yet been extended beyond the wall. On the other hand we have from the same general region two buildings of the Augustan Age, namely the so-called Auditorium of Maecenas and the Macellum Liviae, on the pomerium. It therefore follows that at some time under Augustus the pomerium in this region of the city was extended.

Moreover, LUNDSTRÖM has shown that on the Viminal, Esquiline and Caelian the wall played no part in the region boundaries. If the pomerium, however, had coincided with the wall in that section of the city, it would inevitably have formed a boundary. The extension of the pomerium and the division of the city into the fourteen regions were naturally connected in the reforms of Augustus.

Furthermore, among all the remains on the pomerium there is not a trace of anything earlier than the Augustan Age, and among the reports of earlier excavations there is no

record of anything that might have been republican. As we have just shown, we have definite proof that the pomerium did not extend beyond the wall on the Esquiline before the time of Augustus. It thus seems certain that the extension of Sulla did not go beyond the wall.

The old Etruscan pomerium had remained intact for centuries down to the time when Sulla moved it; and when the « Servian » Wall was built,¹ it was built according to strategic considerations, of course, and without especial consideration of the religious boundary, which had already before this assumed an independent existence. Perhaps a line drawn by Etruscans was not important for Romans of that time. However, the wall had to protect a city which had grown in size. On the other hand, for LIVY the idea of the pomerium was closely associated with that of the wall. Probably the line of the pomerium adhered to the wall at certain points, while it diverged from it at others, and in extending it Sulla moved it up to the wall everywhere except around the Aventine, thus smoothing out the little irregularities, and giving it a natural contour.

Thus we may account for the extension of Sulla without any difficulty. For Julius Caesar, however, there is nothing except the two references of CASSIUS DIO, xliii, 50, 1, and xlv, 49, 2, and that of GELLIUS, xiii, 14, 4, quoted above, against which a quantity of negative evidence weighs heavily. Then the explicit testimony of TACITUS (*Ann.*, xii, 23) and SENECA (*De Brev. Vit.*, xiii, 8) that he did not alter the position of the pomerium, makes it almost certain that DIO and GELLIUS were mistaken. Caesar intended to carry out many radical changes in the city, and even wanted to change the course of the Tiber. In three letters to Atticus (xiii, 20, 1; xiii, 33, 4; xiii, 35, 1), CICERO speaks of his intention of extending the pomerium as well, but Caesar was killed before he had a chance to put his plans into effect. In part they were actually carried out by Augustus.

CASSIUS DIO (lv, 6, 6) speaks of an extension of the pomerium among the events of

¹There can be no doubt that the wall, as we see it now, is essentially a work of the fourth century with later repairs. It was built of grey-yellow tufa, a quarry of which still exists at Grotta Oscura in the neighborhood of Veii, and the quarry-marks cannot be earlier than the fourth century. There are in various places along its path cappellaccio remains of what has generally been considered a wall of the sixth century, the real Servian Wall, but SÄFLUND (in *Eranos*, xxviii, 1930, 176-99) has clearly demonstrated that they represent later additions. The course of the fourth-century wall may have coincided in a general way with the earlier one. However, the impressive ramparts, of which enormous remains strike the eye of the visitor as he arrives at the railroad terminal in Rome, cannot have existed before the Gallic catastrophe, or the Gauls would not have had such an easy time of

it. As PROF. HÜLSEN has said, the Etruscan victory over the Romans at the beginning of the Republic had probably entailed the dismantling of the previous fortifications, for a stipulation in this sense would undoubtedly have formed part of a treaty like that with Porsena in which the Romans were forbidden to carry weapons of iron (PLINY, *N.H.*, xxxiv, 139; cf. MOMMSEN, *Hist. of Rome*, i, 414). Or perhaps the city as a whole had never been fortified before the fourth century, but simply the Arx by itself and the Palatine by itself. Really the story of the sack of Rome by the Gauls would indicate that only the Arx had been fortified, if even that. For the literature on the matter consult the article *Murus Servii Tullii* in PLATNER AND ASHBY, *Topographical Dictionary of Ancient Rome*. Moreover, DR. SÄFLUND'S book on the subject will soon appear.

the year 8 B. C. That would bring it into connection with the division of the city into the fourteen regions, when we should naturally expect it. DIONYSIUS of HALICARNASSUS, iv, 13, 5, however, describing the city of Servius Tullius, says :

Εἰ δὲ τῷ τείχει [τῷ] δυσευρότερον μὲν ὄντι διὰ τὰς περιλαμβανούσας αὐτὸ πολλαχόθεν οἰκίσεις, ἕχνη δὲ τινα φυλάττονται κατὰ πολλοὺς τόπους τῆς ἀρχαίας κατασκευῆς, βουλευθεὶη μετρεῖν αὐτὴν κατὰ τὸν Ἀθηναίων κύκλον, τὸν περιέχοντα τὸ ἄστυ, οὐ πολλῶν τιμὴ μείζων ὁ τῆς Ῥώμης ἢν αὐτῷ φανερὴ κύκλος, κ.τ.λ.

« But if one wanted to compare it (Rome) with the circumference of Athens by means of the wall, which, to begin with, is now hard to find because of the buildings that cover it in many places, but which in many places still preserves some traces of the ancient fortification, » *etc.*

The treatise of DIONYSIUS of HALICARNASSUS appeared in 7 B. C., after he had spent 22 years in its composition. Accordingly the above words must have been written sometime between 29 and 7 B. C. If the space about the wall was already covered with buildings, it must have been invaded long before the year 8 B. C., to which CASSIUS DIO attributes the extension of the pomerium.

Furthermore, the Agger, as we know from the satire of HORACE above quoted (*Sermones*, i, 5, 14-16), had already before 35 B. C. been turned into a public walk, — which in my opinion could hardly have happened without some diminution of the importance of the pomerium at that point.

Probably in the turbulent early years after the death of Caesar, individuals had begun to encroach on the pomerium, and Octavian was too busy with more pressing matters to take any notice of such encroachment. His position, moreover, was not so secure that he could risk alienating sympathy by being too scrupulous. He had not extended the *imperium* and in short had no excuse for usurping the privilege of extending the pomerium. In other words Octavian compounded with practical considerations and let the legal technicalities go for a while. Later, however, at a time when he was laying great weight on legitimizing everything that had happened, he completed the technicality of extending the pomerium, and that would probably have been in the year 8 B. C. as reported by CASSIUS DIO. This scrupulous observance of old religious custom was quite typical of the policy of Augustus, who did all that he could to revive the Roman cults and to intensify the ancient religious feeling. He was appearing in the rôle of the new Romulus. He lived on the Palatine where Romulus had lived, as CASSIUS DIO observed significantly, and in 27, when the Senate bestowed the title of *Augustus* upon him, his own choice had been for *Romulus* (CASS. DIO, liii, 16, 7). One sees clearly how he visualized his position. This Romulus of the new era refounded the city, perhaps ploughing around it a little with an ox and a cow yoked together, as the old Romulus had done around the first settlement on the Palatine.

As HORACE wrote the fifth satire of the first book between 41 and 35, and DIONYSIUS wrote his history between 29 and 7, years might have elapsed from the day when HORACE

said that the Agger had just been turned into a promenade, to the day when DIONYSIUS wrote the words, that the wall was hard to find, because of the buildings that hid it. In 15 or 20 years a vast amount of building can be finished in an overcrowded world-capital.

Why the Aventine was not included in the pomerium until the time of Claudius is a difficult question. There are two reasons advanced by the ancients. MESSALLA, in the *Liber de Auspiciis* as quoted by A. GELLIUS (*Noct. Att.*, xiii, 14, 5-6) says that there were a number of reasons, of which he thought this was the right one: *quod in eo monte Remus urbis condendae gratia auspicaverit avesque inritas habuerit superatusque in auspicio a Romulo sit*: « *Idcirco* » inquit « *omnes qui pomerium protulerunt, montem istum excluserunt quasi avibus obscenis ominosum* ». And SENECA, in the same passage from *De Brev. Vit.* (xiii, 8) already mentioned on pages 147 f., 150 f., asks: *hoc [i. e. that Sulla was the last to extend the pomerium] — hoc scire magis prodest, quam Aventinum montem extra pomerium esse, ut ille adfirmabat, propter alteram ex duabus causis, aut quod plebs eo secessisset, aut quod Remo auspicante illo loco aves non addixissent?* — « either because the plebs seceded there, or because when Remus was taking the auspices on that hill, the birds were not favorable to him ».

It may be, as SCHWEGLER suggested (*Röm. Gesch.*, i, p. 439, n. 8), that the tradition of Remus was localized upon the Aventine because that hill was already reputed as unlucky. The legend shows that a certain shadow rested over it, and the augurs may not have wished to include it in the *finis* for the *auspicium urbis*.

The first of the reasons given by SENECA is, for the early period at least, not tenable. The opposite is true: the plebs withdrew to the Aventine because it lay outside the *urbs*. Furthermore, the date of the plebeian occupation hangs together somewhat with the Lex Icilia. The validity of *plebiscita* as laws was first admitted around 287. Therefore, a Lex Icilia as a plebeian victory must have come at a late period, certainly not in 456 as indicated by LIVY, iii, 31, 1 (*cf.* BELOCH, *Röm. Gesch.*, 205-7); and there could not have been a popular quarter on the Aventine until the third century, for the Clivus Publicius, the carriage road, was built by the aediles L. and M. Publicius *ca.* 238 (*cf.* FESTUS, *s. v.* Publicius Clivus, p. 238 MÜ.; VARRO, *De L. L.*, v, 158), whereas the building of the wall took place in the fourth century.

Modern scholars have sought other explanations (*cf.* MERLIN, *L'Aventin dans l'Antiquité*, 53-68). Among the reasons, suggested as to why the Aventine was excluded from the pomerium, the most probable are the following: first — the suggestion of NIEBUHR (*Röm. Gesch.*, i, 407), — Servius built there the temple of Diana, the common shrine of the Latins, which could not stand on soil exclusively Roman; second, — the explanation of MOMMSEN (*Röm. Forsch.*, 2d. ed., i, 379), — they wished to keep a place free within the walls for massing troops on occasion, — which of course could not be done within the pomerium. The military importance of the hill justified the additional labor and expense

of fortifying it with the wall. It was in fact occasionally used for receiving soldiers. In 211 1200 Numidians with their horses were stationed here (LIVY, xxvi, 10, 5). Moreover, the *Armilustrium* was celebrated here on the 19th of October,¹ a solemn feast of purification of the arms and of Thanksgiving to the gods for the successes of the summer. But the Campus Martius was the usual locality for assembling troops and holding parades.

In regard to the part played by the temple of Diana, however, this is to be said.² The temple of Jupiter Latiaris on Mons Albanus was the common religious center of the communities of Latium. There was, however, a political union, the Latin League, with a somewhat different membership, and it was necessary to establish a religious center for the League itself. Thus shortly after the establishment of the League, the temple of Diana was erected upon the Aventine, *commune Latinorum Dianae templum* (VARRO, *De L. L.*, v, 43).

Sp. Cassius was the one who effected the treaty of alliance between Rome and the League, according to the authors. His name obviously was on the bronze stele which still stood behind the rostra in CICERO'S recollection (*pro Balbo*, 53). LIVY (ii, 33, 9) says as much: *nisi foedus cum Latinis columna aenea insculptum monumento esset ab Sp. Cassio uno, quia collega afuerat, ictum*. According to the *Fasti*, Sp. Cassius was consul in 502, 493 and 486, and according to the tradition the League was founded after the battle of Lake Regillus in 496. Therefore 493 was held to be the date.

There are considerations, however, which in BELOCH'S view make this date too early. We know from a fragment (58, PETER) of CATO'S *Origines* which represents an extract from a document at the shrine of Nemi, that there existed a Latin League from which Rome was excluded and that its chief officer was called the *Dictator Latinus*. Now a league from which Rome was excluded was a league directed against her. If, however, we accept the tradition that Rome had treaties with Gabii and the Laurentes as early as the time of the last kings, and in 444 with Ardea, which belonged to the Latin League just mentioned, it must follow that this league was formed after 444, since Rome would not have been making treaties with separate members instead of with the federation as a whole. BELOCH looks for a time when Rome was too weak to prevent the formation of such a federation and points to the period just after the Gallic catastrophe when her allies fell away from her. The Latin cities were forced to unite in order to maintain their independence.

Now according to LIVY (vii, 12, 7) there was a renewal of the alliance of Rome with

¹ *C. I. L.*, i²: *Fasti Arvalium*, p. 215, *F. Sabini*, p. 220, *F. Maffeiani*, p. 226, *F. Amiternini*, p. 245, *F. Antiates*, p. 249.

² In his *Storia dei Romani* (ii, 96-104), DE SANCTIS followed the tradition and dated the Latin League and the *Foedus Cassianum* in the fifth century. BELOCH,

in his *Römische Geschichte* (179-200), has attempted to demonstrate the impossibility of that date, and I am following his conclusions. For other views, see H. M. LAST, in *Cambr. Anc. Hist.*, vii, 350, and STEINWENTER, in *P. - W.*, x, 1265-1267.

the League in 358. According to POLYBIUS (ii, 18, 5) the alliance had already been re-established during the 30 years' interval between the two Gallic attacks. Sp. Cassius must have been in power during the anarchical period after the capture of the city, and must then have made the pact inscribed on the bronze tablet, which otherwise would not have survived the Gallic plunder. The events were later set back into the hazy period of the fifth century.¹ Obviously no one knew why the Aventine was excluded, and they were searching for explanations.

But since we see that the extension of Sulla amounted to a smoothing out of minor discrepancies between the line of the pomerium and that of the wall, it is clear, as we have said, that the pomerium existing up to his time antedated the erection of the great wall. In other words, no one had moved the old pomerium. Thus it came about that in the fourth century the Aventine was included in the urban fortifications for strategic reasons, whereas it had formerly not been a part of the city and legally did not become one.

Since up to the time of Sulla Rome had a fourth-century wall and an earlier pomerium, the real problem is why *Sulla* did not include the Aventine. He obviously gave no explanations or they would have become known. He was a practical man, and religious reasons would probably not have weighed all too heavily with him. Moreover, Sulla was not a man to worry about bringing troops inside the pomerium if necessary, and, besides, his reforms took place after the defeat of the Marian party, when he had nothing more to fear. When he moved the pomerium, he made only minor changes. The Aventine, on the other hand, was a great plebeian stronghold, and to Sulla in particular, as leader of the aristocratic party, this was not a recommendation.

Why did not Augustus include the hill? That it was a plebeian quarter would certainly not have deterred him. He, too, could not have published his reasons. Its inclusion would, of course, have added a large section to the city. Perhaps the evil reputation of the Aventine was a sufficiently serious consideration for him, with whom the old religion had such importance. At least the ancients suspected that either the plebs or the legend of Remus had something to do with the matter. Aversion toward the plebs probably deterred Sulla, and religious scruples, of which the legend of Remus was an expression, had weight with Augustus.

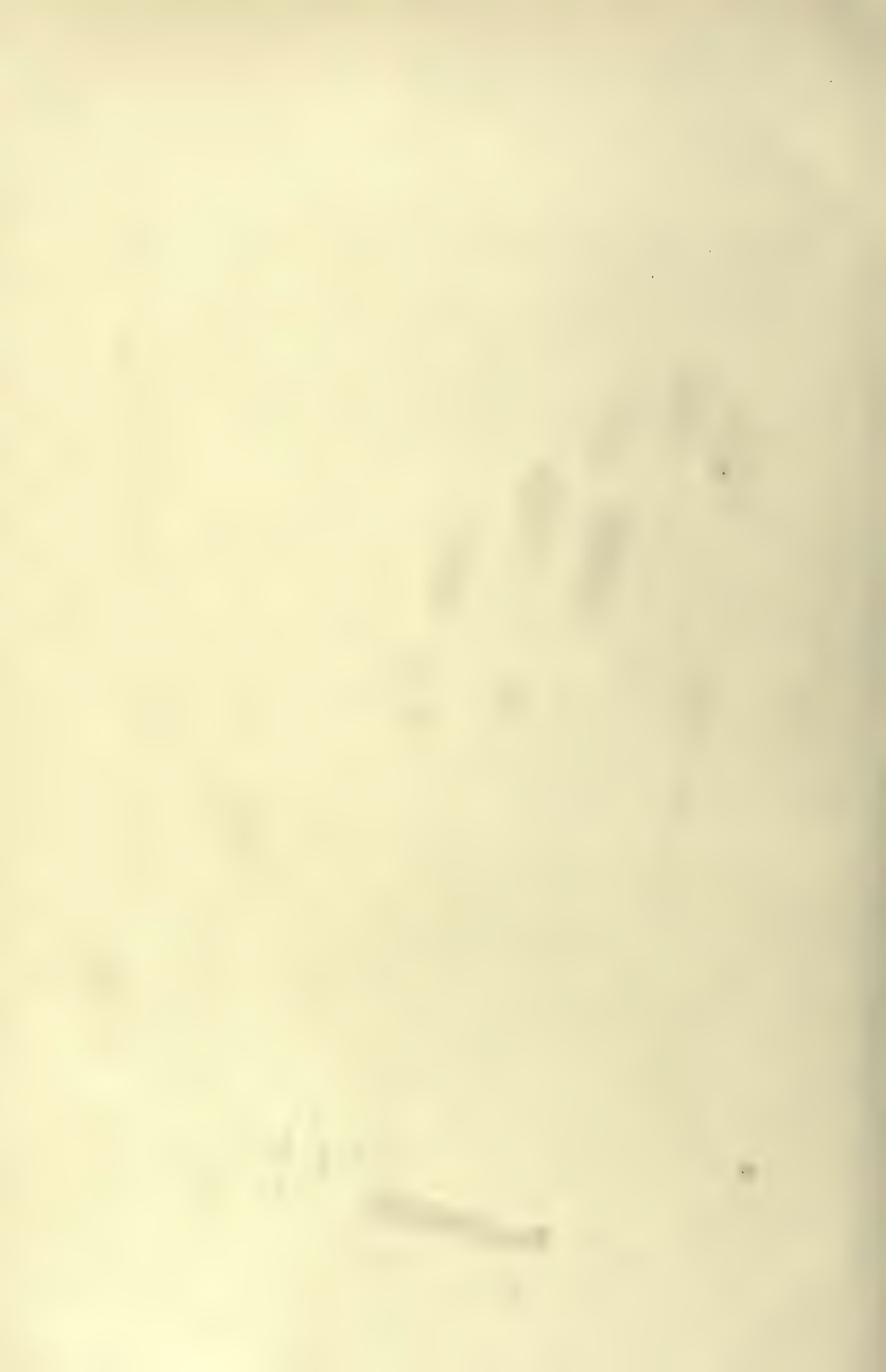
But whether or not we have found the true reason for the exclusion of the Aventine, the indubitable and for our purposes important fact remains.

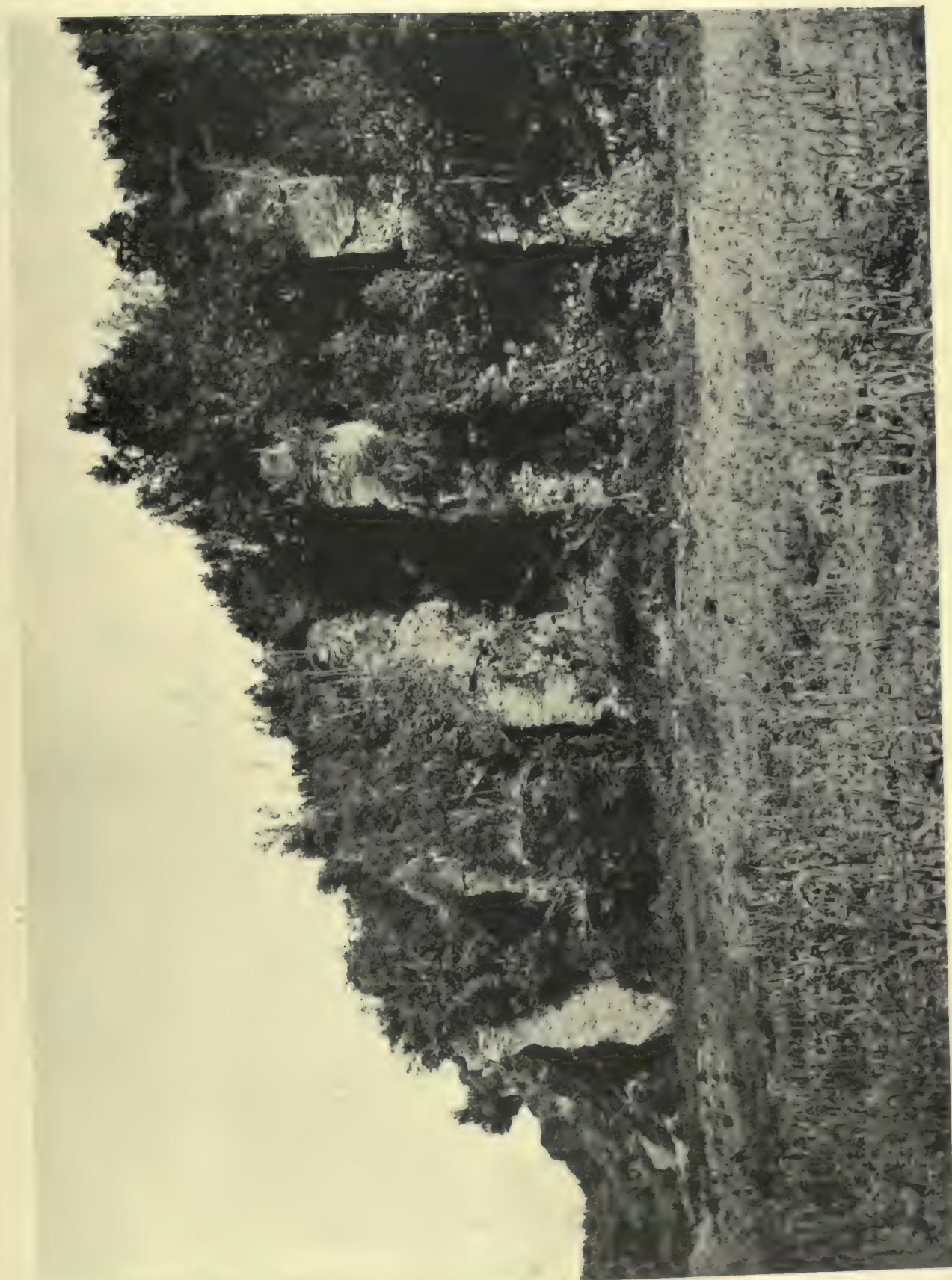
¹ Cf. BELOCH, *op. cit.*, 12 f., 323-332.



Remains of the Imperial Age against the « Servian » Wall in the Gardens of Sallust. PARKER'S Photograph No. 88. See p. 160.

THE AUGUSTAN POMERIUM.

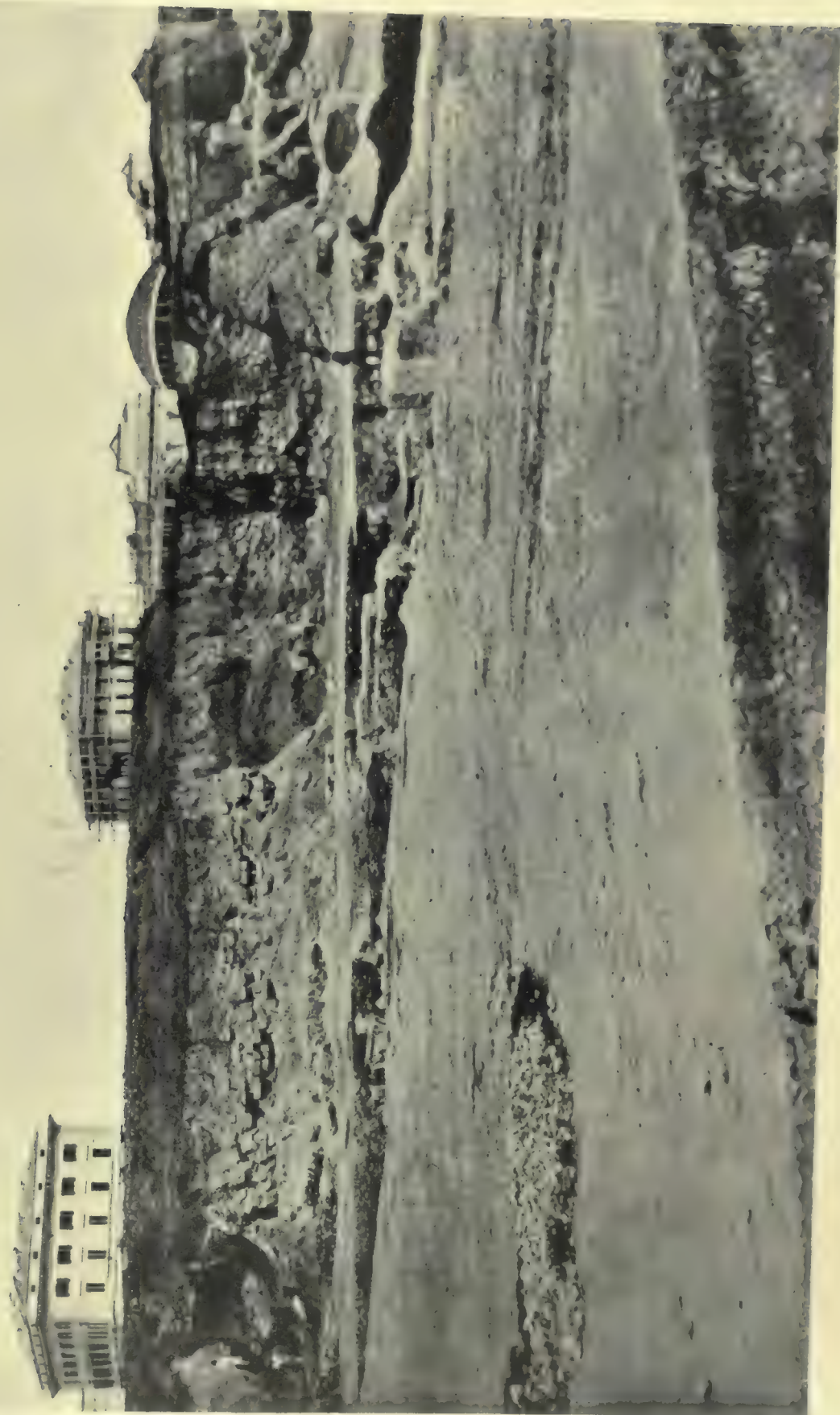




Remains of the Imperial Age against the « Servian » Wall in the Gardens of Sallust. PARKER'S Photograph No. 3293. See p. 160.

THE AUGUSTAN POMERIUM.





Territory in Front of the Railroad Station. PARKER'S Photograph. See p. 163.

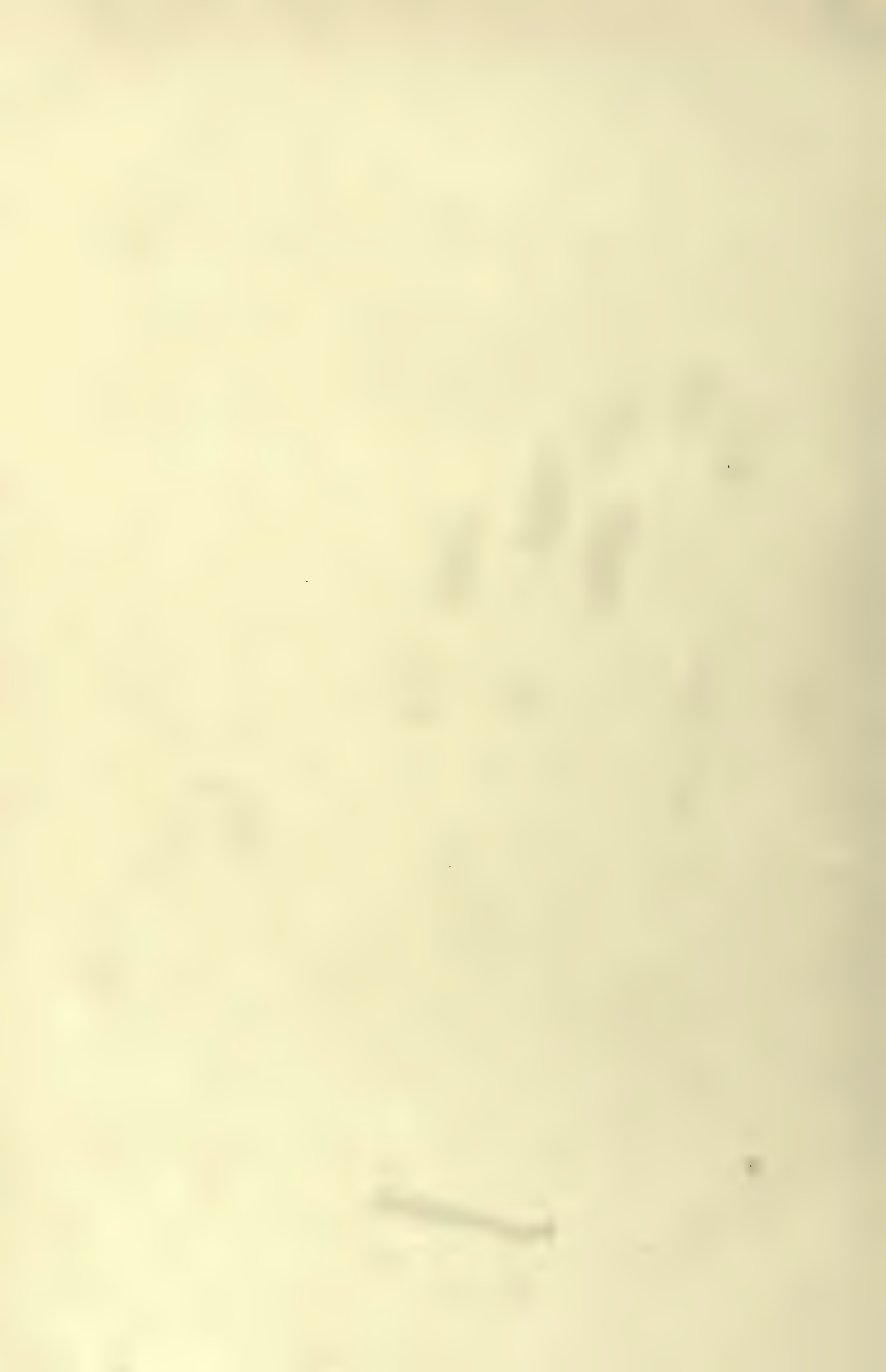
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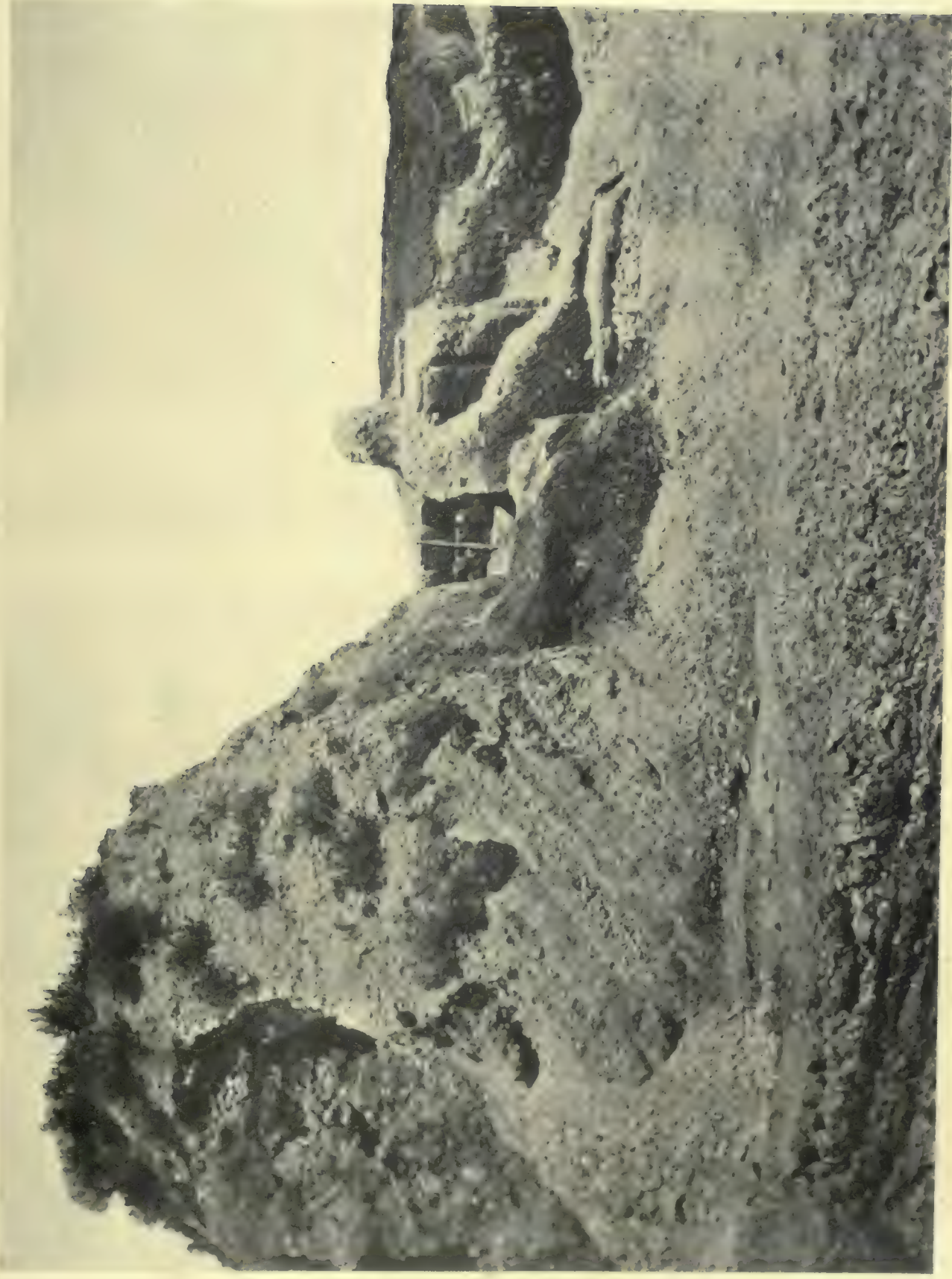




Corner of Area illustrated on Plate 50. PARKER'S Photograph No. 3185. See p. 163.

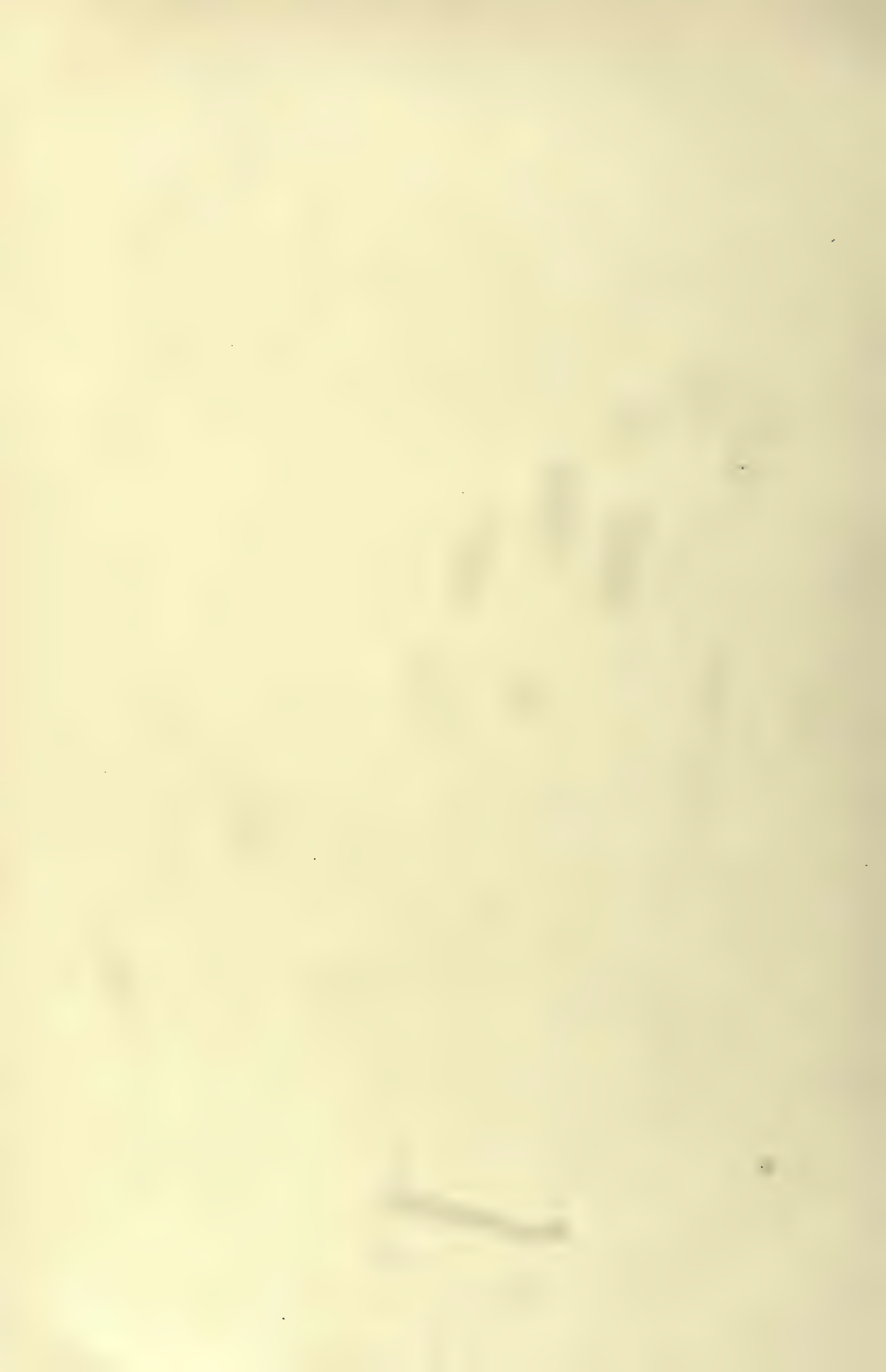
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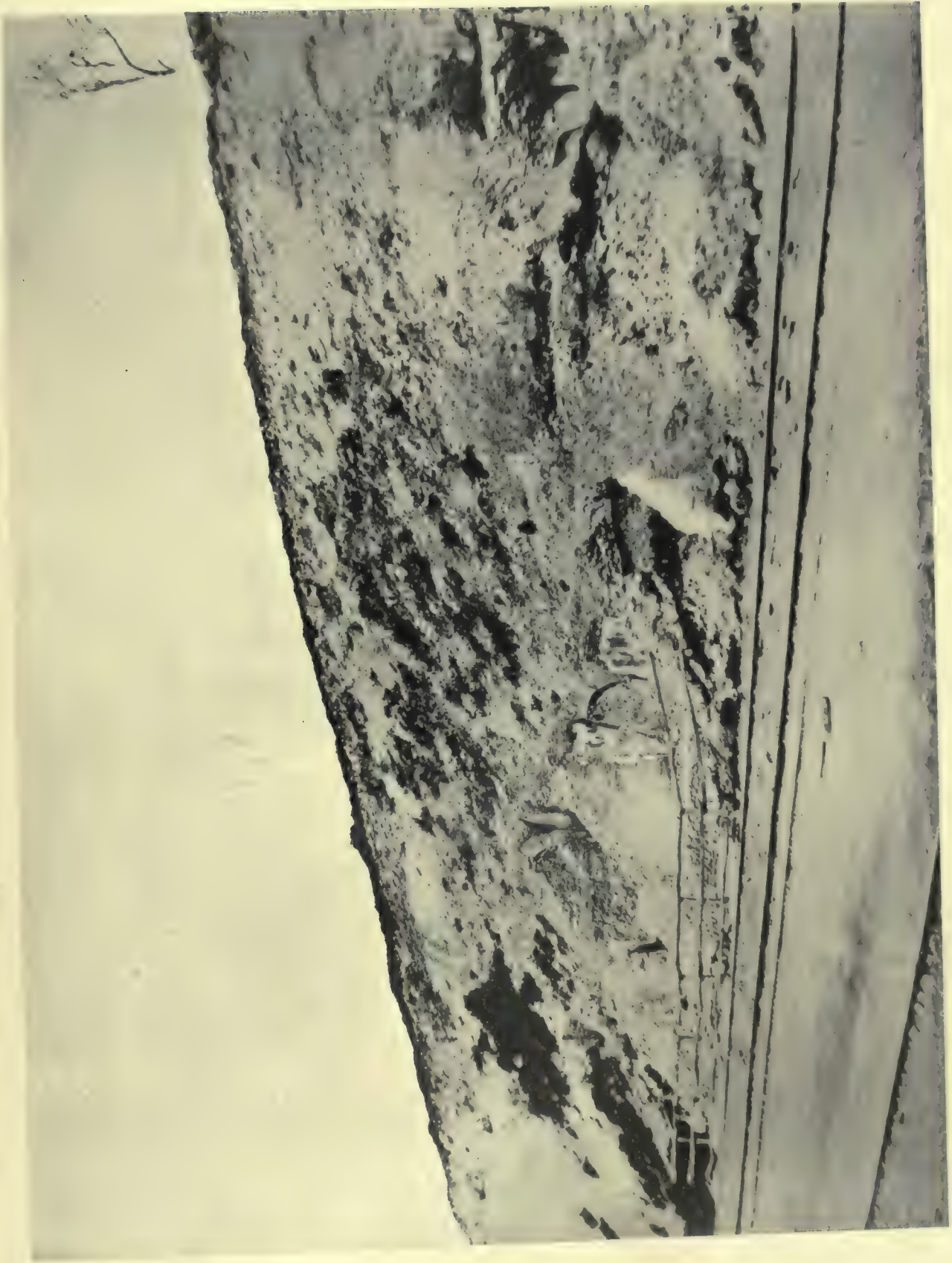




Corner of Area illustrated on Plates 50 and 51. PARKER'S Photograph No. 3186. See p. 163.

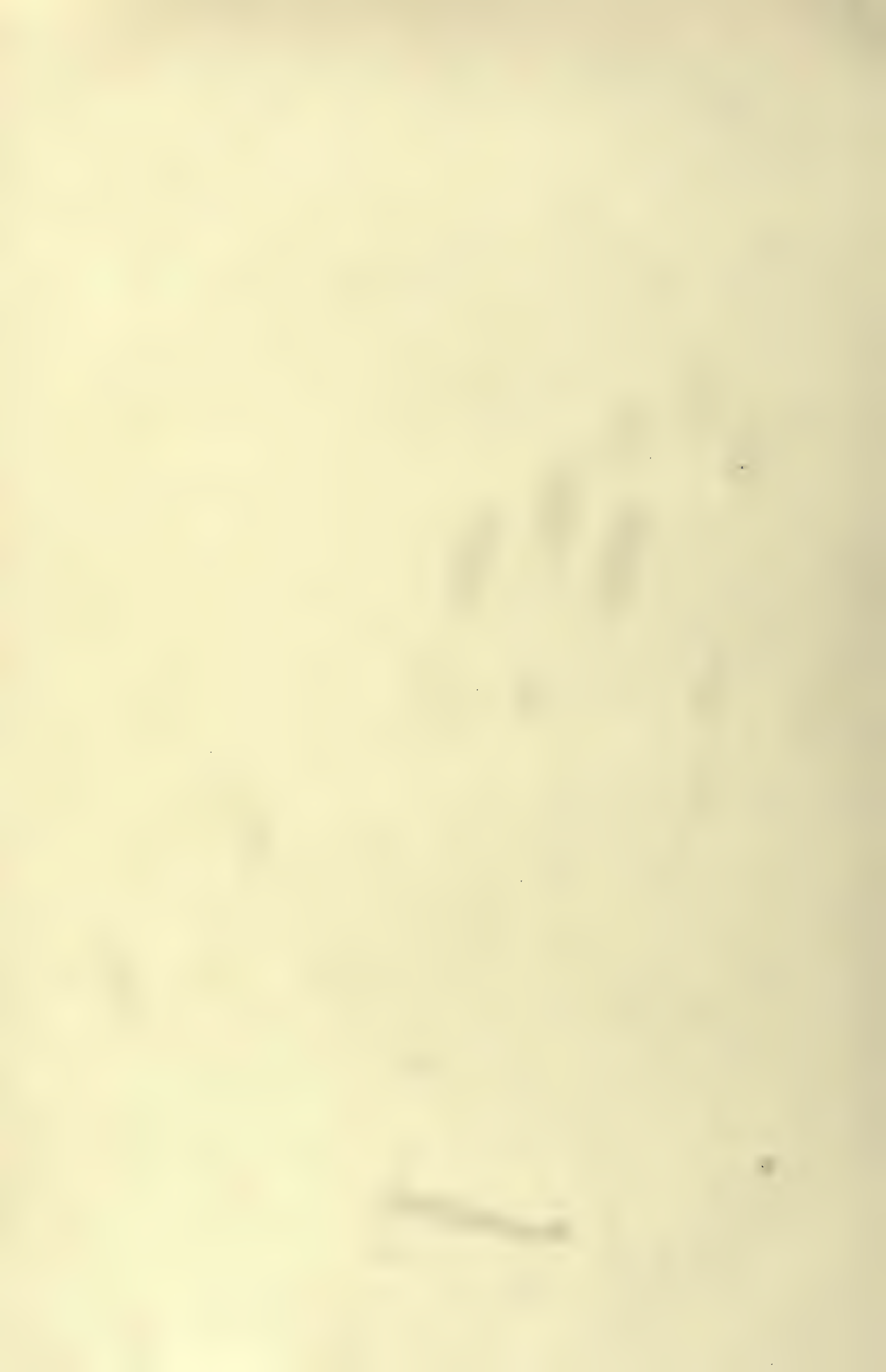
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«First-Century» Remains on the Inner Side of the Agger under the *Mons Justitiae*. PARKER'S Photograph No. 83. See pp. 163 f.

THE AUGUSTAN POMERIUM.





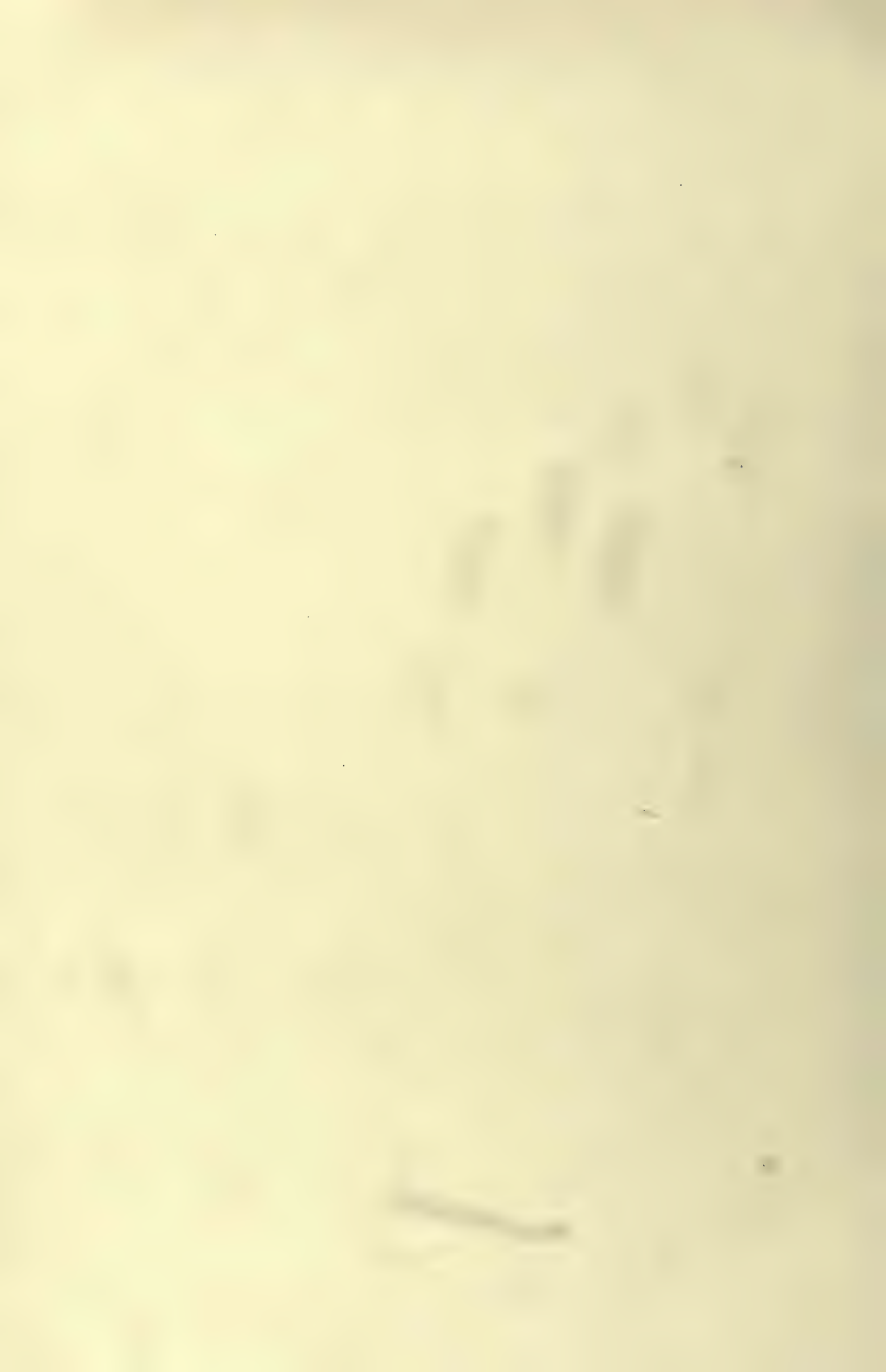
Remains on the Outer Side of the Agger. PARKER'S Photograph No. 152. See p. 164.

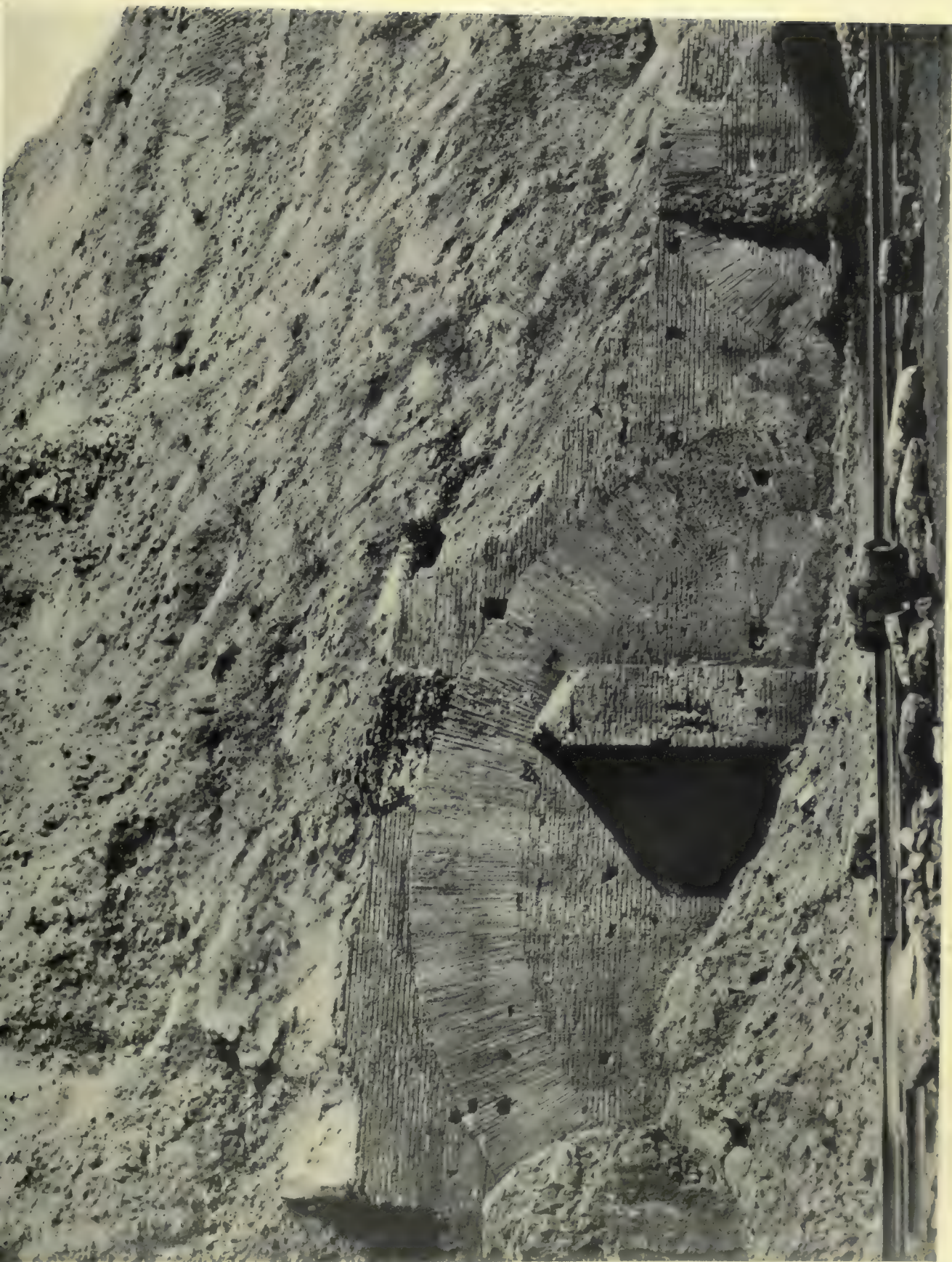
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Another View of Remains on the Inner Side of the Agger under the *Mons Justitiae*. PARKER'S Photograph No. 3323. See p. 164.

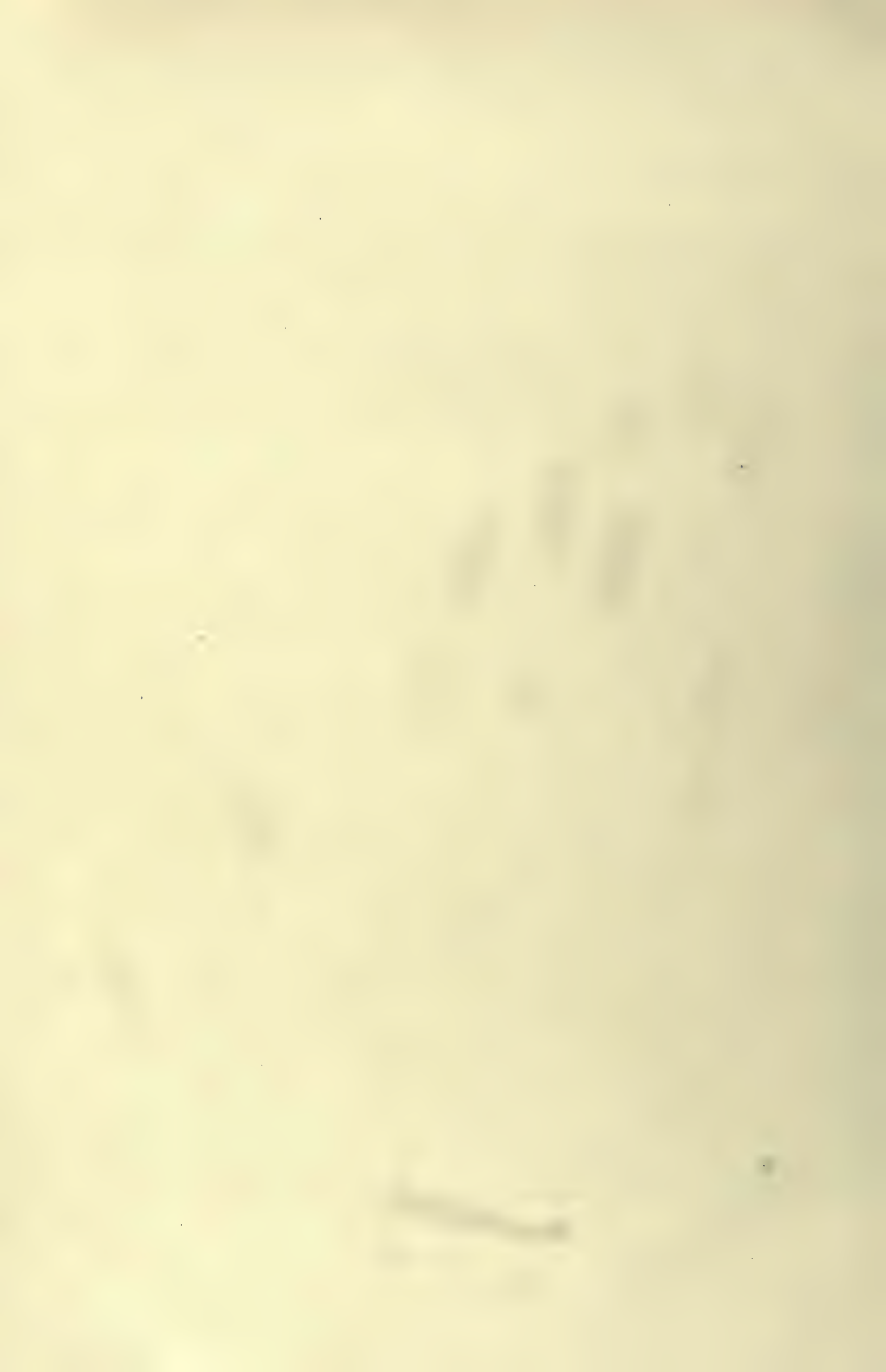
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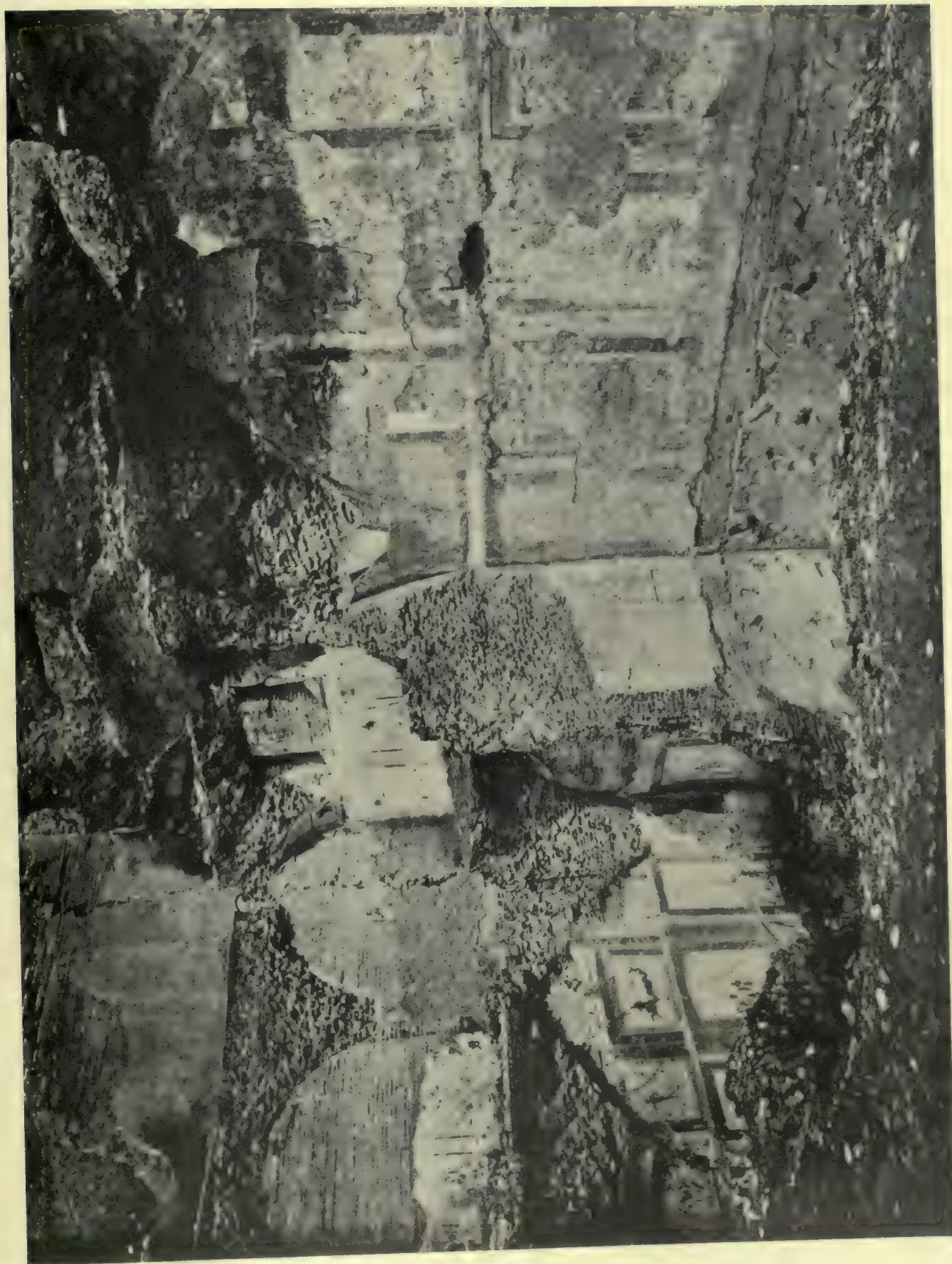




Another View of Remains on the Inner Side of the Agger under the *Mons Justitiae*. PARKER'S Photograph No. 3325. See p. 164.

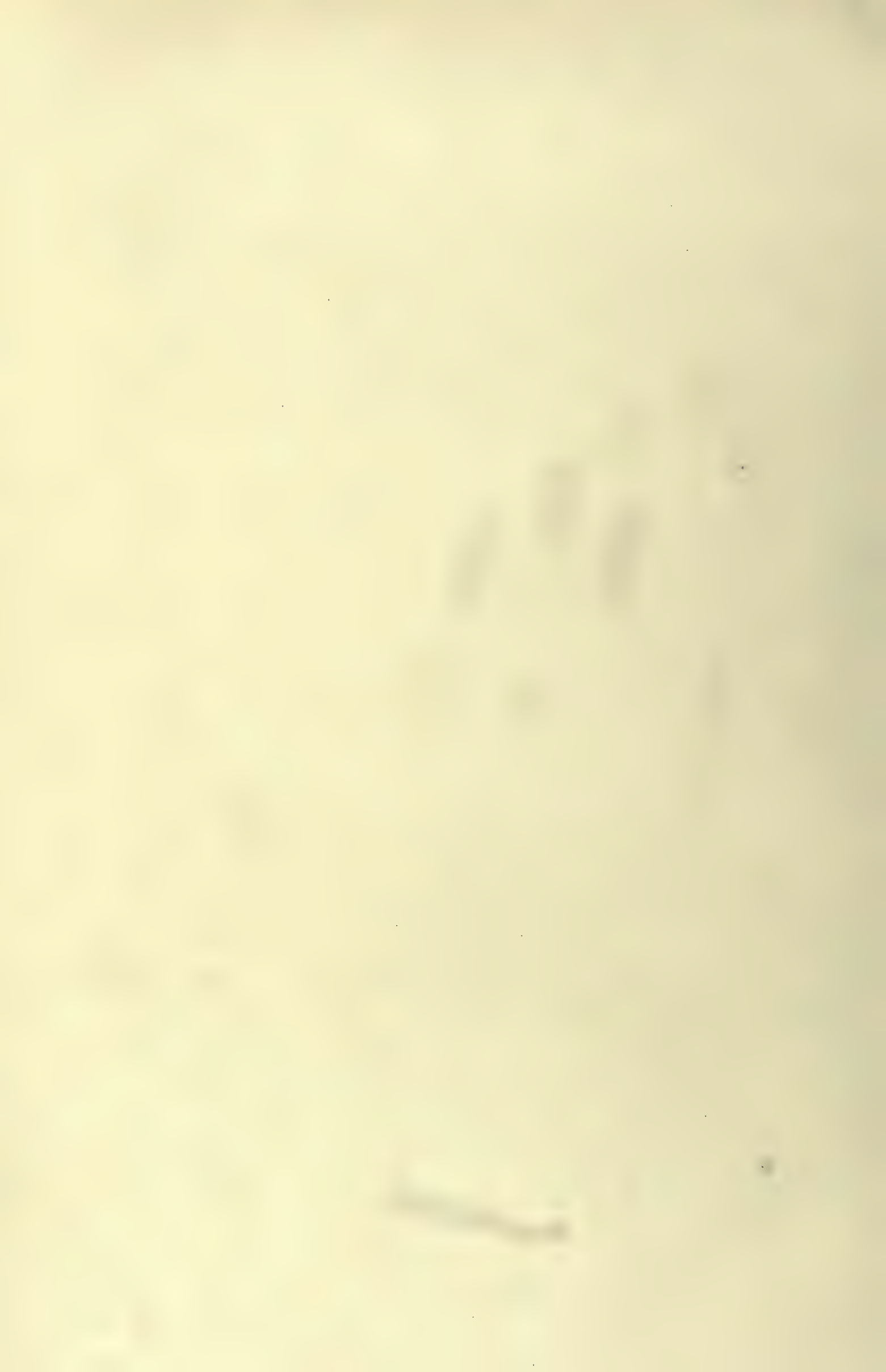
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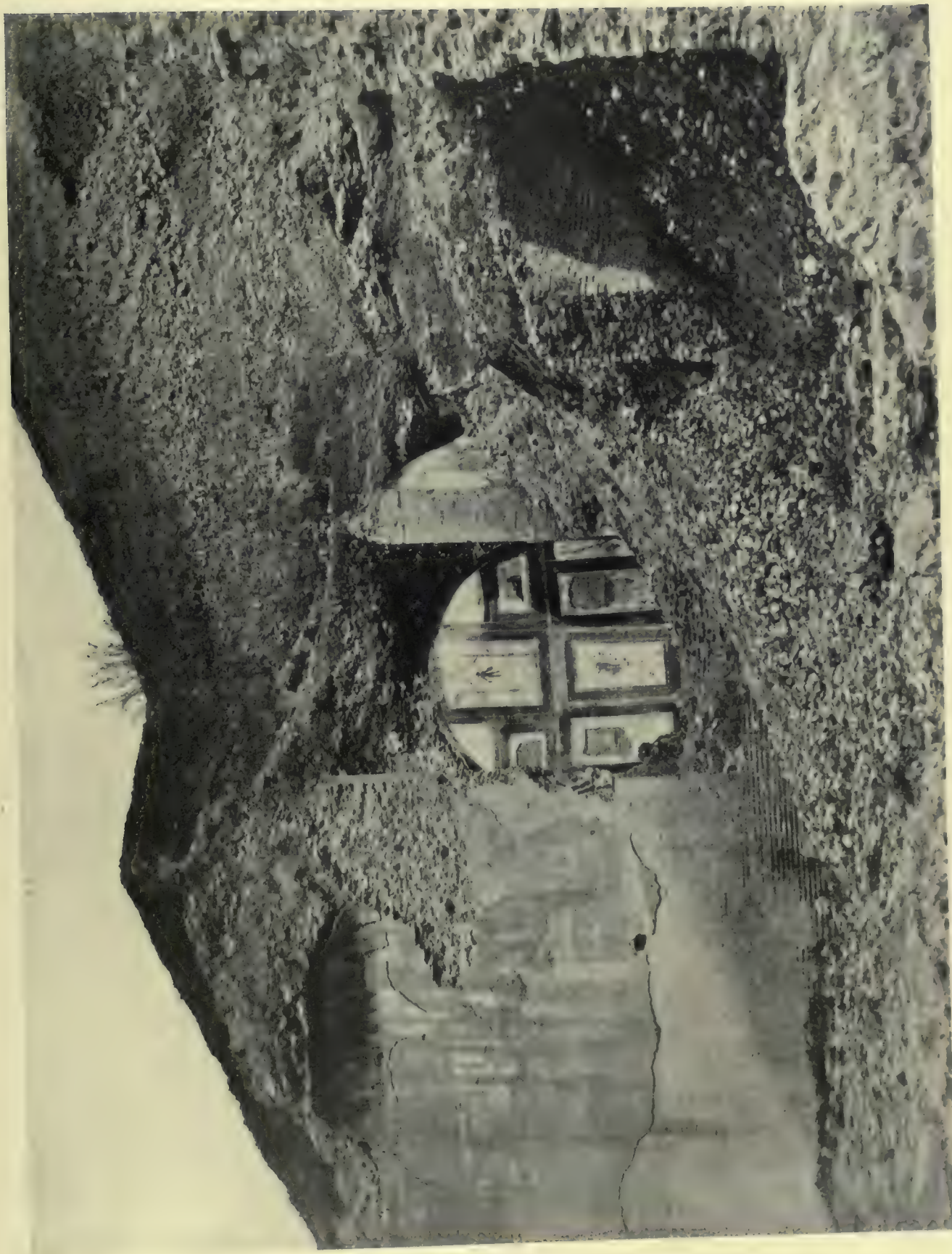




Remains discovered under the *Mons Justitiae*. PARKER'S Photograph No. 1335. See p. 164.

THE AUGUSTAN POMERIUM.





Remains discovered under the *Mons Justitiae*. PARKER'S Photograph No. 1334. See p. 164.

THE AUGUSTAN POMERIUM.



1. View of Augustan Wall built against the Outer Side of the Agger at the Railroad Station.
See p. 164.



2. The Same as seen from Above.



3. Another Augustan Wall extending out from the One Represented Above.
See p. 166.

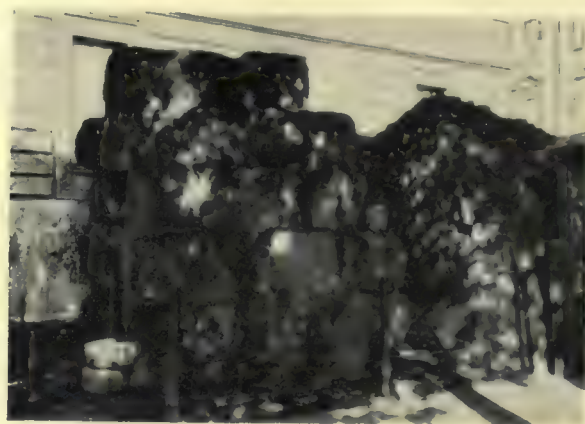




1. A Pier of the Time of the Antonines.
See p. 166.



2. So-called *Castellum*. See p. 166.



3. Portion of the Agger Substruction at the
Piazza dei Cinquecento. See p. 162.



4. Wall of Two Periods (Augustan and Hadrianic).
See p. 166.



5. Photograph taken from Above showing Two Walls built against the
Agger Substruction. The Second Wall completely concealed the First
One of the Time of Augustus. See p. 167.

(Figs. 1, 2, 4, 5: Just outside the Agger at the Railroad Station).



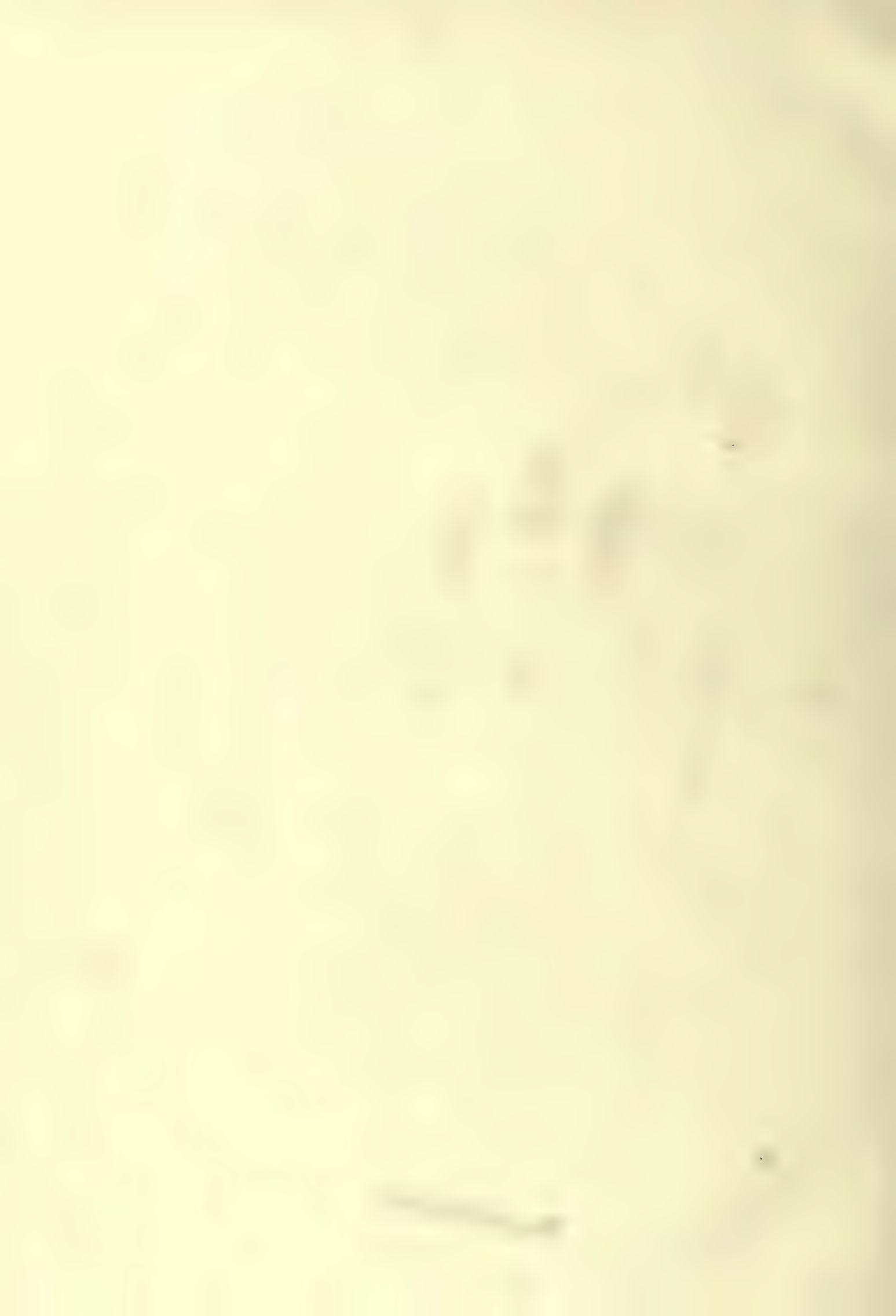
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